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ABSTRACT

This document presents guidelines on emergency response and business recovery for colleges and universities in the event of an earthquake. The guidelines, developed by California institutions and revised based on experience with the Northridge earthquake, are provided under the following headings: (1) "To the President or Chancellor"; (2) "To the Disaster Planner"; (3) "Earthquake Preparedness"; (4) "Earthquake Response"; and (5) "Post-Disaster Recovery." (Appendices contain job specifications for a campus emergency preparedness coordinator, legislation and applicable authorities, a sample disaster response plan from Stanford University, a sample mutual aid agreement from the California State universities, a checklist for campus dormitory evacuation planning, an outline of the cost recovery process for state and federal disaster assistance, and more information about California's Standardized Emergency Management System [SEMS]. Contains a list of further reading.) (EV)

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Governor's Office of
Emergency Services

EARTHQUAKE PREPAREDNESS 101:

GUIDELINES FOR COLLEGES AND UNIVERSITIES

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November 2000

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Earthquake Preparedness 101:

Planning Guidelines
for
Colleges and Universities

Developed by the

Governor's Office of Emergency Services
Earthquake Program
State of California

Revised
November 2000

The recommendations and suggestions included in this document are intended to improve earthquake preparedness, response and recovery. The contents do not necessarily reflect the views and policies of the Federal Emergency Management Agency and do not guarantee the safety of any individual, structure, or facility in an earthquake situation. Neither the United States nor the State of California assumes liability for any injury, death, or property damage which occurs in connection with an earthquake.

ACKNOWLEDGEMENTS

This guide was originally prepared for university and college emergency managers by university and college emergency managers with the assistance of the Governor's Office of Emergency Services. We are indebted to numerous individuals and institutions for their contributions to the development of ***Earthquake Preparedness 101: Guidelines for Colleges and Universities.***

We would first like to acknowledge the major contribution of the University Earthquake Planning Committee co-chaired by Dr. William Regensburger, Director of Emergency Planning at the University of Southern California. Members of the committee provided drafts of each section in the guideline, reviewed and commented on these sections, and were an energetic and insightful source of ideas, information and illustrations, most of which found their way into this document. A complete roster of members appears on page iv.

Impetus for the revision of the guide came from at least two sources, California's Standardized Emergency Management System (SEMS) and experiences from the Northridge earthquake.

Three OES Earthquake Program staff participated as members of the original University Earthquake Planning Committee: James Goltz, Deborah Steffen and Sarah Nathe. Sarah Nathe and Carrie Barnecut, of OES Coastal Region, undertook the revision.

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UNIVERSITY OF CALIFORNIA, BERKELEY

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OFFICE OF THE CHANCELLOR BERKELEY, CALIFORNIA 94720-1500

June 14, 2000

Dear Colleague:

In the three years that I have been Chancellor at the University of California, Berkeley, one of my priorities has been improving campus seismic safety. Because UC Berkeley sits atop the Hayward fault, we recognize our vulnerability to an earthquake's terrible effects: casualties to our people, damaged and closed buildings, costly repairs to expensive and irreplaceable contents, and interruptions to our instruction and research activities. In this, we have the object lessons of Stanford University in the Loma Prieta earthquake of 1989 and California State University, Northridge in the Northridge earthquake of 1994.

The emphasis of our Seismic Action Plan for Facilities Enhancement and Renewal (SAFER) is ensuring the life safety of everyone who spends time on the campus. An important part of that involves improving our organization's emergency response capabilities. We have taken an earthquake as our planning focus, but we recognize that employees well-versed in their emergency roles can reduce deaths and injuries in any kind of disaster. But more than that, their actions can contribute to everyone's well-being and be decisive in sustaining the institution in a time of crisis.

As chief executives, we are responsible for the safety of our students, faculty and staff; equally, we are charged with maintaining the mission of the university. After the myriad disasters in California in the last decade, no prudent organization should be without plans for emergency response and business recovery. Both are clearly described and explained in ***Earthquake Preparedness 101: Guidelines for Colleges and Universities***. I urge you to put it into the hands of the appropriate administrator at your institution and support him or her in actions to train your people and safeguard the operations of your campus.

Attention to this will serve us all well in the future.

Sincerely,

Robert M. Berdahl

Robert M. Berdahl
Chancellor

1.0 TO THE PRESIDENT OR CHANCELLOR

"The Police Chief said, 'Ma'am, you're in charge because the president can't reach the campus. So you need to tell us what to do." I asked, 'what do we do in an earthquake?"
Dr. Louanne Kennedy, Provost and Vice President (during the 1994 earthquake) California State University Northridge

Major earthquakes are inevitable in California and other parts of the country. Colleges and universities are especially vulnerable to losses in earthquakes because of the multipurpose nature of campus facilities. An earthquake during weekday hours may kill or injure students, faculty and staff; an evening or weekend quake could harm the public attending a sporting or theater event, or a conference. Beyond the obvious concern about deaths and injuries, universities and colleges must be aware that a damaging earthquake can make their buildings and facilities unstable, and close down operations. California State University Northridge had so many major buildings damaged in the 1994 Northridge earthquake that administrators had to bring portable buildings onto the campus before classes could resume. Don't wait until circumstances take the upper hand and make your decisions all but impossible; now is the time to prepare for an earthquake. And the decision is yours alone.

1.1 Myths

There are two dangerous myths about earthquakes:

"It won't happen here," or "It won't happen here for years."

Fact: In Northern and Southern California, scientists have determined that there is at least a 67% probability for a damaging earthquake on one of a number of faults in the next 20 to 30 years. Those are very high odds, and the earthquake could hit next week.

Fact: Lack of preparation could lead to loss of life and property; the potential liability is considerable.

Fact: Scarcity of funding for disaster planning or hazard mitigation may not be an acceptable legal argument in litigation or in post-disaster reimbursement claims to governmental agencies.

"There's nothing to be done about it."

Fact: There are many effective hazard reduction procedures that prudent colleges and universities can use to reduce their vulnerability.

Fact: an earthquake could close down your campus, as California State University Northridge was for one month as a result of the 1994 Northridge earthquake. The closure would have been much longer if the campus had not been large enough to place dozens of portable buildings.

Fact: Disaster preparedness planning is as important in business operations as accounting and personnel management.

An earthquake plan is inexpensive earthquake insurance. It can also speed up recovery by increasing the ability to resume operations quickly. You can begin reducing your exposure to loss today.

1.2 California Law Requires Earthquake Preparedness

Under law, California colleges and universities are legally responsible for having an "emergency action plan" and a "fire prevention plan." Each of the plans must include provisions for earthquakes [Title 8 of the ***California Code of Regulations***, Sections 3220 & 3221; Part 40 of the ***Education Code***, Chapter C4.1, Section 66210]. In addition, Section 8607 of the ***California Government Code***, often referred to as the Petris Bill, (chapter 1069,Statuets of 1992) requires that public colleges and universities be prepared to respond to emergencies using the Standardized Emergency Management System (SEMS).

Some cities and counties in California have enacted ordinances requiring the strengthening of certain public and privately owned structures against earthquake shaking. The City of Los Angeles has had such an ordinance since 1981, but many other cities are adopting similar regulations for seismic evaluation and strengthening of buildings.

1.3 Earthquake Preparedness is Necessary and Feasible

Even a moderate earthquake in your area can interrupt normal university operations with transportation disruptions, utility outages, search and rescue operations, and personal emergencies for faculty, staff and students.

If a major earthquake strikes your campus, agencies that would normally respond to an emergency may be unable to do so because of other service requests. Conversely, your campus may be a local focus of attention, upon which rescue workers from other governmental agencies, volunteers, and neighbors converge. Planning for such eventualities will preserve the autonomy of your institution.

Your emergency response plan may prove to be your campus survival plan. Institutions that develop preparedness programs will benefit in many ways.

- Protection of lives and property
- Less disruption to classes and research
- Reduced liability
- Increased probability of disaster recovery aid
- Business resumption plans in place

1.4 How to Make a Program Successful

Disaster preparedness programs may be organized in many ways. Regardless of the particular approach, however, solid support from top management is crucial. Commitment from high-level administrators makes more resources available, adds credibility to the planning and

preparedness program, and contributes to coordination throughout the campus and across campuses.

By committing limited resources now, you increase the likelihood of saving substantial resources later. NOW is the time to:

- Designate a campus Disaster Planning Coordinator. Just as there must be visible leadership during an emergency, there must be a visible leader in planning for emergency.

  Although the Coordinator position can be filled competently by various kinds of people with assorted backgrounds and capabilities, it is *most importantly* an executive position – not a support position. The Coordinator could be an executive from physical plant, health and safety, or capitol programs, but she or he should be familiar with the academic environment and with emergency planning.
- Select and train a Disaster Management Team made up of administration and faculty representatives. Communicate the team's progress regularly to all campus departments and units.
- Incorporate earthquake planning and hazard mitigation in the annual budget process.
- Train administrators, faculty and staff in the Incident Command System; a method of organizing any emergency response effort into five basic functions: command, planning/intelligence, operations, logistics, and finance/administration.
- Establish a campus policy to abate nonstructural hazards.
- Involve in preparedness the many departments and units that will play a role in emergency response, damage assessment, medical and safety responsibilities, and facilities management.
- Collaborate with local, county, and state government agencies, as well as with such community groups as the Red Cross and neighborhood associations, at each stage in the planning process.

1.5 Where to Begin

Use this guide to develop your earthquake preparedness program. It is based on accepted principles of preparedness planning, but more importantly, it is a *practical* manual that reflects the experiences of California academic administrators and emergency managers with earthquakes and other disasters. Public or private institutions of any size can adapt the suggestions in this guide. This is *not* intended to serve as a sample plan to be copied; it is a compendium of issues and problems that may arise and can be addressed through planning. An effective college or university disaster plan must reflect the circumstances and needs of the institution for which it is developed.

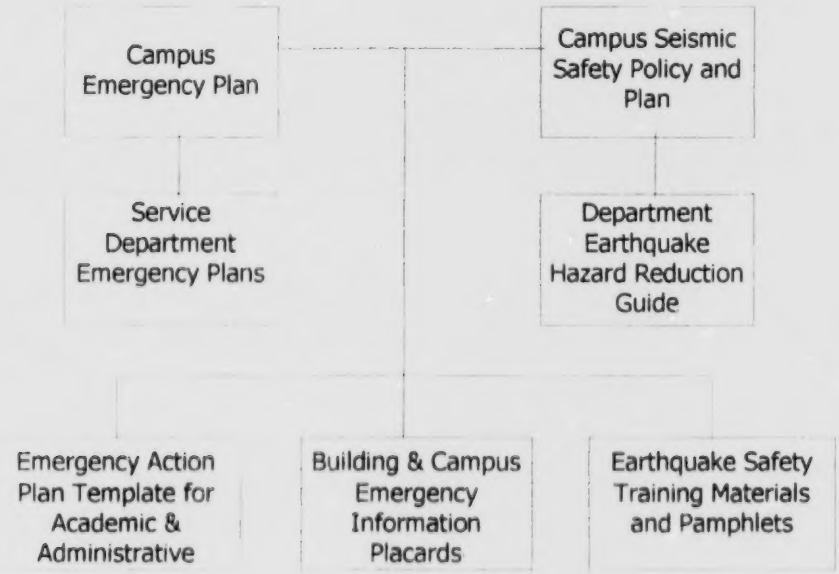
2.0 TO THE DISASTER PLANNER

> ***The key to preparation, I believe, is to have this become a priority on the campus. It must come from the top – the president; the system must support [disaster preparedness] as being as important to the campus to be prepared for emergencies as it is to teach class. That means devoting resources and time to it.*** **– Lieutenant Michael J. Sugar, Department of Public Safety, California State University, Northridge**

Colleges and universities are organizations that challenge emergency planners. Changing an unprepared campus into a moderately prepared one takes energy and resources.

Fortunately, however, your institution also has abundant assets – from talented people and useful equipment, to circumstances that can be used to promote preparedness or response planning. Usually, at least a modest amount of money is available to support a cogent emergency preparedness program.

Products generated as part of an effective Earthquake Planning Process


Campus Emergency Plan
Campus Seismic Safety Policy and Plan
Service Department Emergency Plans
Department Earthquake Hazard Reduction Guide
Emergency Action Plan Template for Academic & Administrative
Building & Campus Emergency Information Placards
Earthquake Safety Training Materials and Pamphlets

Fundamentally, the critical resource for disaster planning is the planner's ability to motivate the campus community to prepare. In other words, the planner must be a persuasive leader.

The academic setting is so diverse and decentralized that disaster planning, like other campus-wide administrative efforts, must reflect the suggestions of all constituencies. Broad participation creates a buy-in and uncovers hidden resources. Disaster response [on campus] is like disaster response in a community. All departments of the community must know what to do for themselves and what to expect of others. - **Roni Gordon, Disaster Preparedness Coordinator, Stanford University**

2.1 Planning Tips

Don't be daunted by the apparent difficulty of developing an earthquake preparedness program at your campus. Earthquake preparedness can be integrated into existing campus safety programs:

- Incorporate earthquake safety and response information into existing safety pamphlets and educational materials.
- Combine earthquake hazard reduction programs with plans to reduce fire, chemical and other types of hazards.
- Design ongoing training programs that integrate earthquake response procedures into existing safety training programs (Standardized Emergency Management System (SEMS) and Incident Command System (ICS) for example).

Divide the planning into phases, recognizing that some tasks may be best handled concurrently. Some tasks can be postponed, depending on priorities and available resources. This guide recommends three basic divisions of the process that can serve as a definition of planning phases.

1) Earthquake Preparedness (**Section 3.0** of this report)
   Assessing hazards
   Developing hazard reduction plans
   Stocking and storing emergency supplies
   Educating the campus community in seismic safety

2) Earthquake Response (**Section 4.0** of this report)
   Developing a campus-wide disaster response plan
   Establishing plans for departments and buildings
   Conducting emergency response training and drills
   Negotiating mutual assistance agreements

3) Post-Disaster Recovery (**Section 5.0** of this report)
   Planning for repairs and reconstruction
   Developing strategies to resume operations
   Planning for financial recovery

Effective planning requires an understanding of the issues, and both executive and staff participation in the process. Explanations of the issues and procedures are given in the FURTHER READING section near the end of this guide.

2.2 The Disaster Management Team

The Disaster Planning Coordinator and members of the Disaster Management Team should be high-level administrators with the influence to make authoritative recommendations. They should decide who will direct and contribute to each phase of the plan. Below is a list of suggested team participants.

- Budget Officer
- Campus Administration and Academic Management
- Campus Police/Security
- Faculty Governing Body
- Fire Department/Fire Prevention Manager/Liaison to Local Fire Authority
- Food and Housing Personnel
- Health Care Providers (if your campus has a medical facility)
- Health and Safety Office
- Insurance and Risk Management Personnel
- Legal Counsel
- Personnel Office
- Public Information Officer
- Physical Plant Department
- Student Representatives

It may take deft cunning to secure the participation of some key players: you will need to convince directors and faculty of the value of the work, arrange for time allowances to be made, forge or rehabilitate intra-institutional relationships, and co-opt potential problem-causers. Earthquake preparedness planning is politically complex. With top-level administrative support, successful emergency managers can bring heterogeneous people and groups together to accomplish a common goal. *It's also very important to include faculty, staff and student representation.* You will find many helpful volunteers among the general campus population.

To enhance the team approach, the Disaster Management Team may want to establish sub-committees and/or technical panels. However, create committees only when necessary to prevent the possibility that meetings become more centrally important to the members than do plan development and policy recommendations.

2.3 Set Goals

Small, incremental goals will help you maintain your momentum. Set them for each planning phase. You may want to begin with a modest project that can serve as a model. For example, you may want to choose one building and concentrate on mitigating nonstructural hazards and preparing the faculty, staff, and students who use that building.

Publicize your accomplishments along the way; updates for the campus community may prove to be THE response plan if an earthquake does not wait for your plan to be completed. Develop recognition of your disaster plans, possibly through the use of a logo.

2.4 A Good Plan is Flexible

The most useful plans in any disaster are flexible and emphasize general strategies over particular tactics. Every disaster is different. The situations that prevail in each one will determine the best tactics to use. A good written plan is often short. Simple, easy-to-use checklists and graphic materials will make the plan understandable and increase its helpfulness.

Furthermore, no matter how well developed your earthquake plan, establishing "command and control" of each situation will take time. Expect confusion after a disaster, but design the plan to minimize the initial period of disorder.

2.5 Update Plans Frequently

Never consider your earthquake plan complete. Before adopting the plan, arrange for campus review and comments. Once you have a plan, train staff with it, test it often – and change it as necessary.

Schedule annual plan re-evaluations and regular exercises of plan elements. Consider actual campus emergencies as unplanned drills and use each experience to evaluate, update, or revise your plan.

3.0 EARTHQUAKE PREPAREDNESS

Pictured above: The recently retrofit Doe Library at U.C. Berkeley. Underneath Memorial Glade (the grassy area in the foreground) are the new seismic and fire-safe main stacks of the library. (Photo: S. Nathe, U. C. Berkeley)

This chapter provides information on four key areas of earthquake preparedness that must be addressed by a college or university:

- 3.1 Assess Seismic Safety Hazards
- 3.2 Reduce Earthquake Hazards
- 3.3 Educate the Campus in Earthquake Preparedness
- 3.4 Acquire Emergency Supplies and Equipment

The Disaster Management Team should develop a long-term earthquake preparedness plan that identifies reasonable objectives and assigned tasks. Campus facilities personnel should be assigned to assessment and hazard reduction programs, while campus police or safety staff should coordinate earthquake education and supply programs.

Progress in each area should be monitored and reported regularly to the campus community. While completion of all the steps identified in this chapter will take time, the earthquake vulnerability of the campus should be steadily reduced.

3.1 Assess Seismic Safety Hazards

The Disaster Planning Team's first task will be to identify potential earthquake hazards to which the campus is vulnerable. Potential hazards include not only structural damage to buildings, but secondary hazards such as falling masonry, shattered windows, toppling equipment, gas leaks, ruptured water pipes, damaged roads, fires, and hazardous materials incidents. The vulnerability of the campus to all such incidents should be assessed.

Whenever possible, integrate seismic assessments with ongoing hazards assessment programs, such as laboratory inspection and facilities maintenance programs. Examples of potential assessment areas include:

1) Evaluate campus soils for earthquake shaking potential. Check with the County Geologist or local planning department to identify nearby faults, areas of potential ground movement, or liquefaction areas near the campus. Information may also be available from geology faculty members, who can place seismic instruments in campus soils and directly measure projected shaking intensity. This information will anticipate the types of problems to plan for in a quake, and provide direction for campus land use planning.

2) Identify buildings that are vulnerable to serious structural damage or collapse in a major earthquake. The most common potentially hazardous buildings are un-reinforced masonry structures and concrete frame structures built without adequate flexibility to withstand earthquake shaking. Buildings with soft stories or irregular shapes may also be unusually vulnerable. A structural engineer with expertise in seismic vulnerability must assess the buildings. Buildings requiring more precise assessment can be equipped with seismic instruments by engineering faculty to identify the structure's probable response the various levels of ground shaking.

3) Assess campus utilities, including water lines, natural gas distribution systems, telecommunications lines, radio antennas and repeaters, electric power distribution system, and heating systems. These systems are lifelines for campus operations and a vital link to the outside world.

   Assessing hazards to these systems involves "what if" questions. Will emergency generators powered by natural gas function if gas lines are ruptured? Will hand-held radios operate if repeaters and antennas topple or have no backup emergency power?

   For all utility systems, find the vulnerable area where damage to a single point will knock out an entire system. Are all antennas and repeaters fixed to a single location where damage will disrupt communications? Does the entire telecommunications system depend on one microwave dish inadequately attached to a structure? Do power, gas, or water distribution systems pass through a single bottleneck where damage could deprive the entire campus of service? Are there points where natural gas leaks could occur?

4) Identify nonstructural building contents that pose seismic safety hazards or probable property loss. Potentially vulnerable items include:
   - Suspended ceilings and pendant light fixtures not adequately attached.
   - Office, classroom, and dormitory furnishings that could topple.
   - Laboratory hazardous materials that could be released.
   - Library stacks that are not adequately braced.
   - Kitchen equipment that could overturn.
   - Computer equipment that could be thrown to the floor.

- Friable asbestos that could be shaken loose.
- Valuable art collections that could be damaged.
- Generators and other large pieces of equipment that could be damaged.

3.2 Reduce Earthquake Hazards

Develop mitigation programs to reduce hazards the Disaster Management Team has identified. They must be clearly prioritized and acted upon. Many of these programs are costly but necessary. Earthquake hazard reduction programs save lives and reduce losses.

The 1994 Northridge earthquake caused nonstructural damage to laboratories and campus offices at Cal State Northridge. (Photo: L. Parsons, U.C. Santa Barbara.)

Central administrators must coordinate some hazard reduction program while others are the responsibility of individual schools and departments. All campus units should be given guidance on potential hazards and risk reduction techniques, and provided with managerial or fiscal incentives to complete recommended measures. Hazards reduction to consider include:

1) **Geologic:** Make appropriate revisions to the general campus-building plan if geologic hazards such as liquefaction or slope failure are identified. Avoid building in high-hazard areas, or build with appropriate mitigation measures, such as strengthened foundations or structural bracing.

2) **Structural:** Strengthening buildings against earthquake shaking can prevent catastrophic loss of life and severe financial loss. Prior to the Northridge earthquake, USC had been systematically seismic strengthening its buildings. The buildings that had been completed came through very well, while Royce Hall, the next building to be retrofitted, nearly fell down.

Strengthening techniques are well known to the engineering community, and vary according to the level of protection desired.

- The most complete protection is provided by base isolation, which involves isolation the building from earthquake shaking and virtual elimination of the seismic hazard. This technique is normally applied to new buildings as they are constructed, such as the University of Southern California Hospital. This facility, completed in 1991, became one of the first base isolated structures in the State of California. The expense was only 5% of the construction cost. The USC University Hospital performed very well in accordance with its design expectations during the 1994 Northridge earthquake. It did not sustain any damage to the structure or its contents.

  Base isolation can also be applied retroactively to an existing building in some cases, at much greater expense. Base isolation may be appropriate for any structure of critical importance to the institution.

- Significant protection is also provided by more conventional strengthening systems applied to unreinforced masonry or poorly reinforced concrete frame buildings. Strengthening techniques generally involve adding steel reinforcements to floors, walls, and roof diaphragms to increase strength, tie structural elements more firmly together, and increase flexibility.

The purpose of most seismic reinforcement projects is to prevent the collapse of the building in an earthquake, **not to prevent major damage or ensure the facility's continued habitability**. The first question in any reinforcement program should be, is the building in question worth saving, or would demolition be a more cost-effective solution? If the building is near the end of its useful life, and has little architectural or historic value, demolition may be a good option, particularly if new facilities are planned.

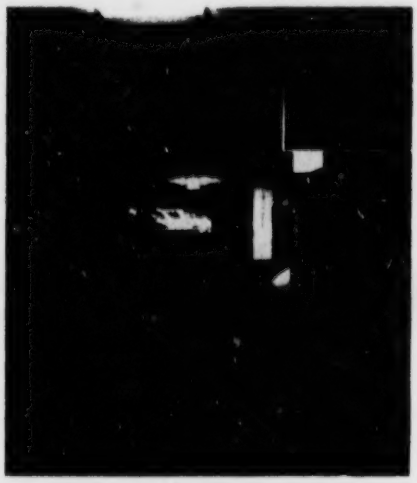
- Those building chosen for reinforcement must be prioritized for action over a reasonable period of time.

  Establish a schedule for strengthening, starting with those buildings posing the greatest life safety risk to the largest number of occupants. Once the worst life safety risks have been strengthened, other vulnerable buildings may be prioritized based on their importance to the academic program or to critical operations involved in providing emergency services. For example, strengthening the central library, a key research building, or the building housing campus police/security may be a high priority.

- Critical buildings with historical significance may be reinforced to a higher level. The University of Southern California building pictured on the first page of this chapter, Bovard Hall of Administration, houses critical administrative offices and is the central landmark of the campus. The building

has been reinforced to a higher level than necessary, and simultaneously remodeled to enhance the interior, provided with handicapped access, and fitted with upgraded utility systems. Structural hazard reduction programs are expensive, but the benefits are significant. Stanford University, the pioneering academic institution in California seismic safety, found in the 1989 Loma Prieta earthquake that all reinforced buildings performed well, saving lives and preventing immense financial loss.

3) **Nonstructural:** Furniture or equipment that may injure people or exacerbate the earthquake's impact should be rearranged, fastened down, or protected from the effects of seismic activity. For example, cabinets or shelving over 48" tall should be bolted to the wall; seismic restraint lips should be installed on chemical shelving; large expanses of glass should be replaced by tempered glass or covered with safety film; heavy light fixtures should be secured by extra bracing.



Shelving at Stanford University was not secured by bracing at the time of the1989 Loma Prieta Earthquake. Photo: Division of the State Architect

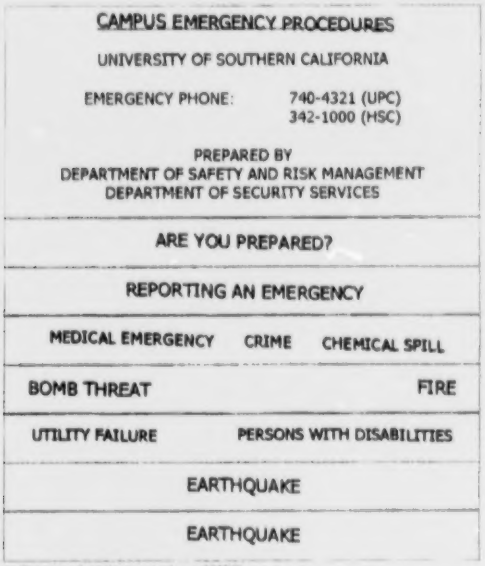
Identify appropriate projects for your campus and ensure that they are properly engineered and executed. Nonstructural retrofits may be ineffective if improperly installed. Your mitigation strategy may involve a centralized approach, in which the Facilities Department identifies and eliminates hazards, or a decentralized approach, in which each campus unit performs the work.

4) **Protection of essential lifelines.** Campus lifelines should be strengthened against potential earthquake damage by reinforcing or bracing key equipment, providing emergency power, reducing the vulnerability of key points in each system, and diversifying critical facilities. Create alternate paths for utility services to reduce dependence on bottlenecks. Install automatic seismic shutoff devices in systems subject to secondary hazards. For example, consider natural gas shutoff devices for large boilers vulnerable to explosion. Consider reducing the risk of electric power loss by establishing a power co-generation system for the campus or installing emergency generators in critical facilities.

Integrate these seismic projects into existing facilities upgrade projects to the extent possible. Routine replacement of pipelines, and other equipment provides a major opportunity to cost-effectively reduce earthquake hazards.

3.3 Educate the Campus Community

Successful response and campus recovery following a major earthquake will depend partly on the earthquake awareness of staff, faculty, and students. However good the formal disaster plan may be, its success will depend on how well the campus community has been educated in earthquake survival and basic response procedures. A variety of the methods, including those listed below, can be used to increase earthquake safety awareness:


CAMPUS EMERGENCY PROCEDURES

UNIVERSITY OF SOUTHERN CALIFORNIA

EMERGENCY PHONE: 740-4321 (UPC)
342-1000 (HSC)

PREPARED BY
DEPARTMENT OF SAFETY AND RISK MANAGEMENT
DEPARTMENT OF SECURITY SERVICES

ARE YOU PREPARED?

REPORTING AN EMERGENCY

MEDICAL EMERGENCY CRIME CHEMICAL SPILL

BOMB THREAT FIRE

UTILITY FAILURE PERSONS WITH DISABILITIES

EARTHQUAKE

EARTHQUAKE

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1) Develop a "Campus Emergency Procedures" pamphlet that describes appropriate response to a variety of emergency situations. Include checklists for earthquake, fire, medical emergency, hazardous materials incident, bomb threat and other types of incidents. Emergency information such as evacuation routes and outdoor safe assembly points should also be printed on signs posted in campus buildings. Widespread distribution and posting of basic emergency information can provide highly visible education to the campus community, and provide a widespread awareness of basic evacuation procedures.

2) Present earthquake safety programs to staff, faculty, or student groups to provide the core of education programs. Social psychological studies show that people typically avoid earthquake preparedness because they do not believe the risk will affect them, or because they do not believe that preparedness actions will do any good. Effective preparedness education must therefore emphasize the **certainty** of the earthquake threat but avoid exaggeration of the threat ("scare tactics"). Presentations should have a positive tone, emphasizing the **survivability** of earthquakes if proper precautions are taken.

First aid class for staff and students at U. C. Berkeley. (Photo: U.C. Berkeley Office of Emergency Preparedness)

Effective presentations often include these key topics, adapted to offices, classrooms, or residence halls:

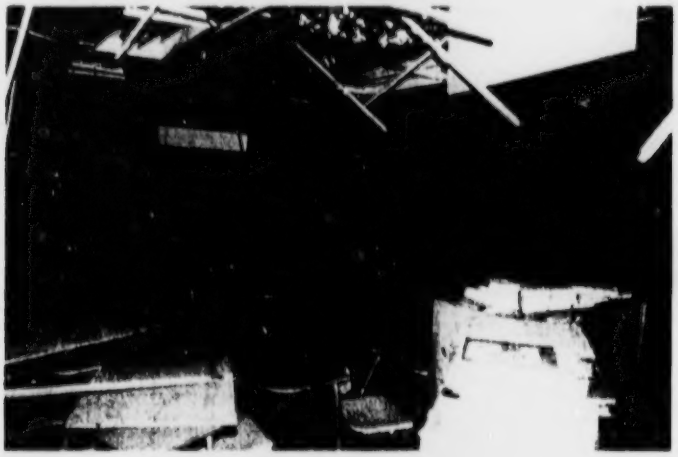
- The seismic threat from potentially active earthquake faults in the area.
- What to expect in a major earthquake.
  - ⇒ Regional scenario.
  - ⇒ Campus hazards.
  - ⇒ Campus emergency plan.
- What to do in an earthquake.
  - ⇒ During the Shaking.
  - ⇒ After the Shaking Stops.
- How to be better prepared.
  - ⇒ Actions to take on campus.
  - ⇒ Actions to take at home.

3) Request that instructors read a brief earthquake safety information message in class at the beginning of each term.

4) Loan earthquake safety videotapes to staff, faculty, or student groups.

5) Place seismic safety information in campus publications.

6) Arrange earthquake safety exhibits in campus libraries or museums.



When the suspended ceiling grid gives, it frequently allows everything dependent on it (light panels, acoustic tiles, lens covers or diffusers, fluorescent tubes) to fall down as they did during the Northridge Earthquake. Photo: B. Eplett, OES CA

3.4 Acquire Emergency Equipment and Supplies

Emergency equipment and supplies will be necessary to enable the campus community to survive and recover following a major earthquake. Universities or colleges will maintain certain types of equipment centrally while others types may be kept on hand by decentralized campus units. The type and amount of supplies will depend on the campus situation. A campus in an isolated area, vulnerable to loss of contact with the outside world in a major disaster, may need substantially more basic survival supplies than an institution in the heart of a major urban area.

Basic supplies and equipment include:

- *Emergency communications equipment* kept in a centralized campus emergency operations center. The emergency center should be equipped with telephones, backed up by redundant systems to ensure communications under severe conditions. Redundant communication channels can include UHF or VHF radio systems, cellular telephones, or CB radios.

- *Tools and equipment* to conduct emergency repairs or rescue activities, such as bracing timbers, hardhats, crowbars, gloves, hazardous materials cleanup materials, emergency lights, and self-contained breathing apparatus.

- *A reserve of food and water* for emergency responders, resident students, and others on campus following the earthquake. Store these reserves in a cool, dry place. (For example, Stanford University has placed emergency supplies in a number of small underground silos located near residence halls.) Campus dining services units should also make pre-earthquake agreements with vendors to ensure continued service in an emergency.

- *Many small emergency kits*, stored by individuals, with water, food, first aid materials, a battery-operated flashlight and radio. Many vendors market such kits, or the college may put packets together at lower cost. Departments should purchase a larger emergency kit for their central office.

- *Spare emergency medical supplies* suitable for basic assistance to mass casualties, stored by campus medical care units. Note: Consider involving the Red Cross in providing disaster supplies by agreeing to allow a campus facility to function as a community shelter in the event of a major disaster.

4.0 EARTHQUAKE RESPONSE

The first hours and days after a major earthquake are critical. Decisions made during this time will affect the college or university's recovery for years, or even decades. Several types of emergency response plans will be needed:

- A campus-wide emergency plan and policies.
- General emergency action plans for academic and administrative departments.
- Plans for units that will provide key emergency services.
- Building-wide evacuation plans.

4.1 The Problems You Will Have

To build an effective response capability, you must anticipate the problems caused by major earthquakes. Below are some problems your campus will face following a major earthquake, along with suggested solutions.

- **Lack of information about what has happened.** Establish an emergency communications and control center to gather information on injuries and damage. Report the campus' status to external agencies.

- **Students, faculty, staff, or visitors with injuries. People trapped in hazardous areas.** Dispatch appropriate responders or teams of trained volunteers to locate casualties, provide first aid, and transport individuals to available medical care. Organize rescue teams and equipment. Provide post-disaster counseling to those with traumatic stress.

- **Damaged or collapsed structures. Potential falling hazards.** Evacuate and close dangerous buildings. Assemble occupants at pre-designated evacuation points. Inspect buildings to determine if they are safe to re-enter. Assess damage to equipment and furnishings.

- **Fire and/or hazardous spills in labs and other areas.** Assign trained personnel to locate, assess, control, and mitigate incidents.

- **Damage to telephone, water, electrical power, gas, or other systems.** Assign inspection and repair teams. Provide emergency power and water to critical operations.

- **Students, staff, faculty and news media demanding information.** External requests from anxious relatives. Influx of media. Assign staff to address questions and concerns about campus population. Disseminate status reports and instructions to evacuees. Communicate with appropriate city/county agencies. Set up media center. Appoint a trained spokesperson to serve as liaison with the media.

- **Not enough staff.** Staff may not be available to help at the campus due to damage to their own homes. They may not be able to drive to the campus.

- **Resident students displaced from damaged dorms.** Locate alternative shelter by doubling up in undamaged facilities or arranging temporary shelter in non-residence buildings.

- **Failure of nearby roads, rail systems, dams, nuclear power facilities, or refineries.** Coordinate with local authorities. Evacuate the campus, using pre-identified routes.

- **Convergent responders – volunteers, neighbors, specialists.** Develop a convergent volunteer management plan to direct the application of the talents and energies of these responders.

This rest of this chapter contains information that will help you respond to your problems in a coordinated way. It covers a number of planning steps designed to achieve an effective response capability, including:

4.2 Incorporating the Standardized Emergency Management System (SEMS) and the Incident Command System into your emergency plan.
4.3 Establishing an Emergency Operations Center (EOC)
4.4 Developing emergency response priorities.
4.5 Assigning emergency responsibilities.
4.6 Gathering supporting data for a campus plan.
4.7 Participating in mutual assistance agreements.
4.8 Developing emergency plans for departments and buildings.
4.9 Providing emergency response training.

4.2 Incorporating Standardized Emergency Management System (SEMS) and the Incident Command System (ICS)

The concepts of SEMS help institutions respond effectively to a disaster. Furthermore, *California law requires that all state agencies — public colleges and universities included — must use SEMS* to be eligible for reimbursement of their personnel-related costs by state disaster assistance programs. Private institutions should use SEMS to coordinate with local emergency services.

The Standardized Emergency Management System is based on a number of concepts, of which three are highlighted here:

1) a management tool called the Incident Command System (ICS),

2) mutual assistance systems, in which similar organizations assist each other in emergencies, and

3) multiple agency coordination under which diverse organizations work together and communicate with each other.

Use of SEMS by colleges and universities will improve coordination and communication, and reduce duplication of efforts. Campus responders who use the functions and components of the Incident Command System (ICS) will find that the principles of central coordination, cooperation, and delegated responsibilities can be useful in minor emergencies as well as major disasters on campus.

The Incident Command System upon which SEMS is based consists of five levels of organization, called functions. These functions encompass the tasks that are involved in any emergency response.

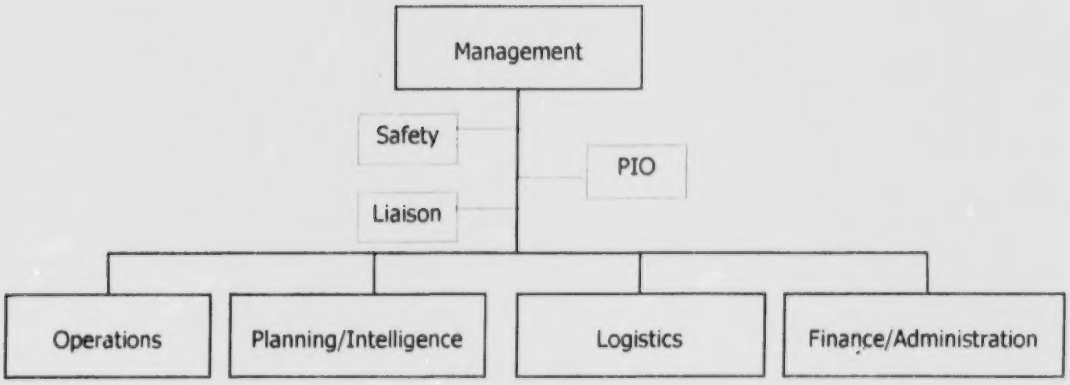
FIVE FUNCTIONS OF SEMS.

FUNCTION	RESPONSIBILITY
1. Management (SEMS)	Overall direction, policy
2. Planning/Intelligence	Determine the current and projected situation in the not-too-distant future by: • collecting and disseminating information; • maintaining documentation; • evaluating incoming information
3. Operations	Perform the actions that make up the emergency response
4. Logistics	Provide facilities, services, personnel, equipment, materials
5. Finance/Administration	Oversee financial activities by: • establishing contracts with vendors; • keeping pay records; • accounting for expenditures

Additional functions that support management are:

- **Liaison**: Coordinates with representatives from cooperating and assisting agencies
- **Public Information (PIO):** Prepares public information releases and interacts with the media
- **Safety**: Monitors and assesses safety hazards and develops measures for ensuring personnel safety

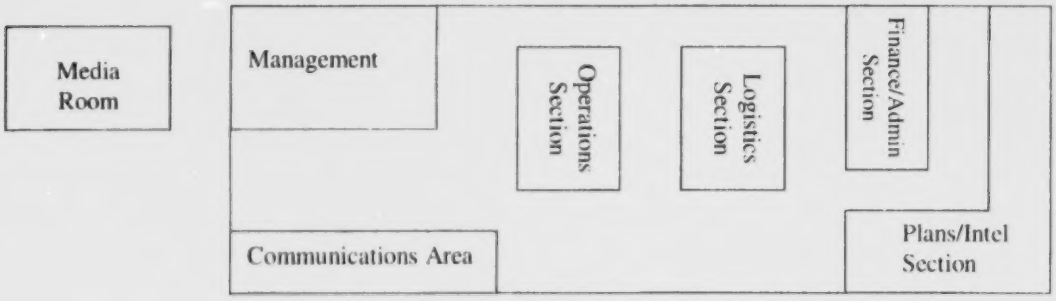
The following flow chart shows the management staff and basic SEMS sections in a functional organization.



NOTE: Sometimes it is difficult to determine whether an earthquake has been severe enough to activate the entire plan and staff all the functions – particularly if the quake occurs during off-hours and damage is light in an individual's own neighborhood. It is advisable to have a clear policy in place stating what emergency response personnel should do in the event of a moderate quake.

There is more information about the Standardized Emergency Management System in Appendix G.

4.3 Establishing an Emergency Operations Center (EOC)



An EOC is a centralized location for the coordination of emergency response. The use of an EOC is a standard practice in emergency management. Your campus should have a designated EOC facility. The physical size, staffing, and equipping of an EOC will depend on the size and complexity of the institution and the emergencies it may have to manage. An ideal layout has a designated place for all five ICS functions as well as a room for the media

(as shown in the example above.) Since the EOC is the pivotal point in the system, it is *essential* to locate this headquarters in a seismically sound structure.

It is critical to equip a campus EOC facility with reliable communications. An emergency telephone protection/line load control system (usually called "Essential Line Service") is crucial for the EOC and the Emergency Service Unit Command Posts. Two-way radio will allow basic communications if phones are out. The EOC serves as the central point for:

- coordination of all the campus' emergency operations,
- information gathering and dissemination,
- coordination with the university system, local governments, and the operational area.

4.4 Developing Emergency Response Priorities

The EOC is quickly activated when a coordinated emergency response is needed, and designated staff begin to assess the situation and to direct resources. Often the first objectives are predetermined in the campus emergency plan and include establishing the organization and essential life-saving actions detailed in a checklist. General priorities can be established now that will help sort out campus response actions after an earthquake disaster. For example, a set of priorities could be:

1) **Protection of Life Safety.** Assist the injured, evacuate hazardous areas, and eliminate life safety hazards.

2) **Preservation of Property and Resources.** Eliminate risks to facilities and systems that could lead to serious property loss beyond that already sustained in the earthquake.

3) **Restoration of Campus Academic Programs.** Restore services, facilities, and programs to allow resumption of classes and research programs.

4) **Communications.** Establish, coordinate, and direct verbal and written communications within the campus and outside agencies.

The campus emergency response will be calibrated to the nature and severity of the earthquake. Obviously, after a **catastrophic** quake, life safety will be the overwhelming priority for a significant period of time. However, in a **moderate** earthquake, protecting resources and resuming operations may be the most immediate issues. Ensure that your planning accounts for **both** kinds of situations by developing response procedures that can be tailored to the severity of the situation.

- Designate field emergency response teams in key departments and train team members to report automatically to specific campus zones or facilities to assume command of incidents within their area of expertise. Maintaining communications with their department, they coordinate response actions with other units through the EOC. Volunteers can be trained to assist in field operation response teams when additional help is needed.

4.5 Assigning Emergency Responsibilities

For each response priority identified, assign key departmental units to carry out specific categories of post-quake actions. Each department that is designated to provide emergency services develops its own plan, coordinated with the overall campus plan and integrated with other emergency service plans (see section 4.7 for more information). While specific arrangements detailing which campus unit will perform certain emergency services will vary from institution to institution consider the following example of emergency organization (based on SEMS) and its suggested departmental assignments.

KEY for the following outline:
ICS Function/SEMS Section
- ♦ Person in Charge
  Suggested Personnel for Chief Assignment
  - ◊ Section Tasks
    Suggested Personnel for Task Assignment

Management Section (the leader)
- ♦ Manager
  Executive Administrator, Campus Police or Fire Chief
  - ◊ Public Information
    Public Affairs/Relations staff, Executive Administrator, trained staff
  - ◊ Safety (for the Emergency Operations Center)
    Risk Management staff
  - ◊ Liaison
    Administrative Assistant

Planning/Intelligence Section (the thinkers)
- ♦ Plans/Intelligence Chief
  Department Head
  - ◊ Documentation
    Instructional staff, Personnel staff
  - ◊ Situation Analysis
    Plant/Facilities staff, Risk Management staff

Operations Section (the doers)

- Operations Chief
  Executive Administrator, Police Chief
  - ◊ Search and Rescue; Hazardous Materials; Evacuation
    Campus Police or Fire staff, Plant/Facilities staff
  - ◊ Care and Shelter (for shelter population)
    Housing/Food Service staff
  - ◊ Medical and Psychological First Aid; Coroner Coordination
    Student Health/Campus Hospital staff, Campus Police or Fire staff
  - ◊ Traffic Control; Site Security
    Campus Police staff
  - ◊ Structural Safety Inspection
    Facilities staff (Construction and Engineering), Risk Manager

Logistics Section (the getters)

- Logistics Chief
  Executive Administrator,
  - ◊ Supplies/Facilities
    Finance staff, Facilities staff, Instructional staff,
  - ◊ Staffing
    Personnel staff, Instructional staff
  - ◊ Food and Shelter (for EOC staff)
    Housing/Food Service Staff, Instructional staff
  - ◊ Communications (technical support)
    Information/Technology staff, Campus Police or Fire staff

Finance/Administration Section (the payers)

- Finance Administration Chief
  Financial Officer
  - ◊ Timekeeping
    Finance staff, Personnel staff
  - ◊ Purchasing
    Finance staff

4.6 Gathering Supporting Data for a Campus Plan

After an earthquake disaster your Emergency Operations Center decision-makers will first determine the relative dangers of each on-campus incident and then decide what specific resources can be assembled for an effective response. Therefore, it is important to have access to detailed data about the campus and its community. At a minimum, a practical campus emergency plan will include appendices with the following types of information:

- List of emergency telephone numbers, including staff home numbers, cellular telephone numbers, and lists of external agency contacts (city, county, Red Cross).

- Maps of campus emergency evaluation zones, hazards, emergency routes, and utility systems.
- Specific data on campus facilities (occupancy, value, age of buildings, presence of hazardous materials).
- Contact list of trained volunteers.
- Emergency message forms, incident documentation forms, and other forms developed for the EOC.
- Data on community hazards and resources.
- Description of supplies, equipment, and other resources currently available on campus for major emergency response. The description should clearly identify access to emergency resources.

4.7 Participating in Mutual Assistance Agreements

In an earthquake disaster, it may take some time for outside assistance to be available to colleges and universities. Local governments will focus their limited response resources on the most dangerous incidents that may not be on campus. Mutual assistance agreements and understandings may be a major resource for needed assistance.

Pre-disaster agreements can be made with other universities or colleges outside or inside the area. Resources that may be shared include hazardous materials responders, structural engineers, facilities specialists, medical and psychological specialists, and other skilled personnel. Such agreements may be made between campuses of a public system, or between private schools. There is a sample mutual assistance agreement in Appendix D.

Agreements with the American Red Cross allowing the university to serve temporarily as a community shelter may be a good idea. While such agreements may obligate the college to share campus space with a shelter after a disaster, the assistance provided to the local community will help to strengthen community relations in the long term. The local Red Cross chapter has shelter agreements that can be completed and signed in advance of a disaster.

Other examples of useful agreements include:

- Agreements with nearby hotels and restaurants to assist with food and shelter.
- Agreements with vendors and contractors to make the school a high priority for continued service.
- Agreements with volunteer structural engineers to assist with building inspection.

- Agreements with amateur radio groups to assist with emergency communications.
- Agreements with security companies for helping secure the campus.

When mutual assistance plans are generated, make sure there is an understanding of who will pay for services and supplies.

4.8 Department and Building Emergency Plans

All campus departmental units have critical responsibilities for safeguarding students, faculty, and staff before, during, and after an earthquake. For example, if an earthquake occurs when classes are in session, students will expect professors to know appropriate emergency procedures and provide leadership. All faculty and staff should be familiar with the campus' basic **building emergency plans** and with their **department emergency plan.**

The following sections provide information about basic plans.

Building emergency plans

These are imperative and include evacuation routes and assembly points, simple protective actions, and notification procedures. The campus may already have some of the basic plans, such as building evacuation, in place. Additionally, plans should include the following:

- Emergency escape procedures and routes.
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate.
- Procedures to account for all employees after evacuation.
- Rescue and medical checklists for employees.
- Preferred means of reporting fires and other emergencies.
- Names or job titles of persons who can be contacted for further information on duties under the plan.
- Written guidance on potential fire hazards, proper handling and storage procedures, potential ignition sources, fire control procedures, and fire protection equipment or systems.
- Names or job titles of those responsible for maintenance of fire prevention/control systems and equipment.
- Names or regular job titles of those responsible for control of accumulation of flammable/combustible materials.

Department emergency plans

These are intended to ensure the program continuity of a specific department. All departments, administrative and academic, specify how the unit will coordinate with the overall campus earthquake plan. A department plan includes departmental priorities, chain-of-command, alternate operating locations, and special concerns.

Department emergency plans will vary with each type of department. All of them provide for emergency supplies for occupants, and identify critical functions and resources to be protected.

Department emergency plans address any hazard that could affect operations.

- Laboratory research departments' plans include emergency plans for hazardous materials, lab animals, and equipment failures.
- All computer-dependent departments' plans specify emergency procedures to protect vital records.
- Art departments and libraries' plans have special procedures to protect valuable collections.

Every department plan ensures that faculty and staff are also aware of building emergency procedures at any location used by the unit.

Building and department plans need not be included within the campus plan, although a suggested format for writing local plans could be included as an appendix. The success of local plans depends on the presence of individuals in each unit designated to be responsible for safety, emergency response, and risk management, and trained in these areas.

- Make every department head aware that safety is a management function, and that they are responsible for ensuring the familiarity of all staff with emergency plans and procedures.

4.9 Emergency Response Training

Even the best emergency response plan will be ineffective if it is simply an attractive volume on campus bookshelves. In fact, having a generally unknown plan may be worse than no plan at all because it can give a false sense of security. Ongoing education and training programs are essential for meaningful campus emergency planning, among them the five following:

1) SEMS training for EOC staff
2) Specialized skills training for responding emergency services staff
3) Training for staff volunteers
4) Public education programs for the campus community
5) Emergency drills

Details of the above five training programs include:

1) **SEMS** training for EOC staff includes:

- SEMS overview
  * Basics
  * Operating requirements and individual responsibilities
- Principles of disaster management in EOCs
- EOC operational considerations
- General EOC applications
- Concepts and procedures of SEMS at the Local, Operational Area, Region, and State EOCs

2) **Specialized training** for staff in units with emergency service responsibilities includes:

- Orientation to roles outlined in the campus plan
- Evacuation procedures and search and rescue techniques
- Emergency communications resources/methods
- Disaster medical assistance and triage
- Incident management
- Personnel tracking
- Hazardous materials incident procedures
- Damage evaluation and repair
- Utilities inspection and service restoration
- Shelter management
- Post-earthquake psychological debriefing

3) **Response training** for building and department safety coordinators, lab managers, and resident advisors volunteering to help with emergency response includes the following general topics and skills:

- Orientation to roles outlined in the campus plan
- Incident management
- Evacuation techniques
- Fire suppression
- Light search and rescue
- Medical and psychological first aid

4) **Public preparedness and education programs** tailored to the needs of students, staff, and faculty audiences explaining:

- Basic earthquake survival procedures
- Orientation to the campus plan
- Procedures for specific limited emergencies (see education section in Part III)

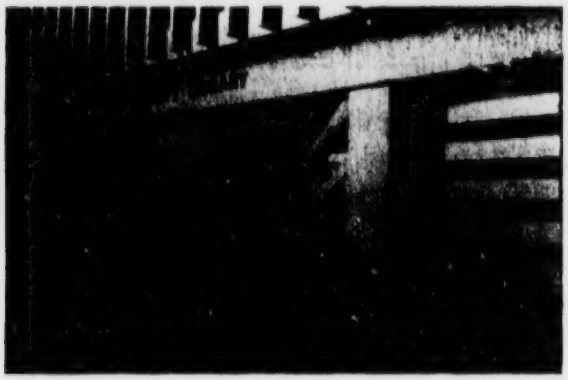
5) **Emergency plans** are exercised regularly to remain fresh and meaningful. While it is true that simple evacuation drills and even actual minor emergencies provide some test of department and building emergency procedures, a full-scale earthquake exercise will produce a substantive and comprehensive test of interdepartmental coordination.

When you plan a major earthquake exercise, consider the following key components:

- Use the Emergency Operations Center.
- Provide a scenario to which the group will respond.
- Test the group's response to the scenario by asking them to identify priorities and actions. A more elaborate exercise may involve actually mobilizing field staff to carry out simulated actions.
- Ask the group to evaluate the response, identifying needed revisions to plans and ways to better coordinate actions.
- Identify lessons learned in the exercise, including both gaps to be closed and things that went well. Follow up with needed plan revisions or training.

EOC staff at U. C. Berkeley use the Standardized Emergency Management System for a response exercise, while field teams practice emergency search and rescue. (Photo: U.C. Berkeley Office of Emergency Preparedness)

5.0 POST-DISASTER RECOVERY



The library at California State University Los Angeles was closed for repairs following the Whittier earthquake of 1987. (Photo: C. Arnold, BSD Inc.)

While the typical major university has hundreds of structures containing millions of dollars worth of equipment and supplies, campus administrators tend to focus almost exclusively on disaster preparedness and response. Financial recovery and continuity of operations receives little, if any, attention. Emergency planning task forces should include units such as finance, procurement, contracts and grants.

5.1 Resumption of Activity

After the emergency response is over, the most complicated work begins. Recovery and reconstruction describe a disaster-stricken community's return to normal functioning, restoration of the built environment, and optimistically, to an improved state of seismic safety in the process. Frequently, however, recovery and reconstruction cannot be quickly accomplished.

A college or university must rapidly resume normal or quasi-normal activities. Two weeks or less are available before academic and research programs are seriously disrupted. One month may be all the down time possible before a semester must be canceled completely and the future of the institution itself called into question. The recovery process must begin when the shaking stops; a well-considered recovery plan can reduce disruption and expedite resumption of programs.

5.2 The Importance of Recovery Planning

Most organizations have not planned for earthquake recovery and reconstruction. In a recent survey of business and corporate officials it was discovered that the highest post-disaster priority was business resumption, yet only 1% of those interviewed reported any pre-disaster

planning for post-disaster recovery. This situation probably prevails in other institutional settings as well.

Lack of planning requires that major policy decisions be made on an ad-hoc basis during the stressful emergency response period under conditions most likely to lead to errors, missed opportunities and lengthy delays. This would be a costly mistake. Consider the following two results.

1. **The consequences of <u>not</u> planning ahead:**
    - The college or university may not qualify for Federal Disaster Assistance funding for which it is eligible
    - Opportunities to use the reconstruction period to achieve planning goals could be lost.
    - The most visible issues rather than those of greater long-term importance are likely to receive attention.
    - Without adequate planning, reconstruction may simply reproduce the same seismic safety hazards that existed prior to the earthquake.
    - The emergency response organization can be stressed unnecessarily if it is expected to handle both response AND recovery.
    - Opportunities to use the reconstruction period to achieve planning goals could be lost.
    - The institution may be forced to close because it cannot get classes and research going again.

2. **The rewards of planning ahead:**
    - Keep the campus doors open!
    - Keep grant money coming in.
    - Facilitate the resumption of college or university operations in a rapid and efficient manner.
    - Allow for flexibility and adaptation to exigencies.
    - Provide opportunities to greatly enhance the seismic safety of the campus or entire system.
    - Improve general land-use planning by including seismic considerations.

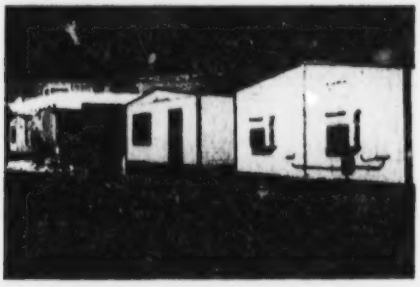
5.3 Pre-Event Recovery Planning for Post-Event Recovery Demands

Begin pre-event planning for disaster recovery by establishing a recovery and reconstruction subcommittee of the Disaster Management Team to include representatives from the faculty, purchasing, accounting, physical plant, risk management, planning, administration, the legal office and the emergency coordinator.

- The subcommittee should draft policy statements for consideration that affirm the importance of recovery and reconstruction planning as part of a comprehensive earthquake preparedness and response program.
- The subcommittee should consider issues relating to repair and rebuilding, financial and program recovery, and should propose policies for review by campus management and develop plans that address these issues. As the emergency response phase of the disaster wanes, college or university officials may face a campus with severely damaged buildings, bridges, parking structures and other facilities. Debris from the earthquake may impair access to buildings or parts of the campus. Constant aftershocks will change the status of buildings on a daily basis. Pre-disaster planning will enable your institution to address three elements of recovery that are interrelated and demand attention simultaneously during the recovery period.

1) There is the task of demolition, repair and rebuilding, each requiring difficult and potentially divisive decision-making.
2) A severely damaged campus will, in all likelihood, require financial resources that exceed the capacity of operating budgets, reserves and insurance coverage to recover.
3) An earthquake stricken college or university must quickly reestablish its program – resume classes, research activities and campus business despite the dislocation caused by the earthquake.

Because of the Northridge earthquake, CSUN had no buildings safe enough to house classes, yet needed to start the semester. The solution – 400 portable classrooms – was a huge logistical nightmare.

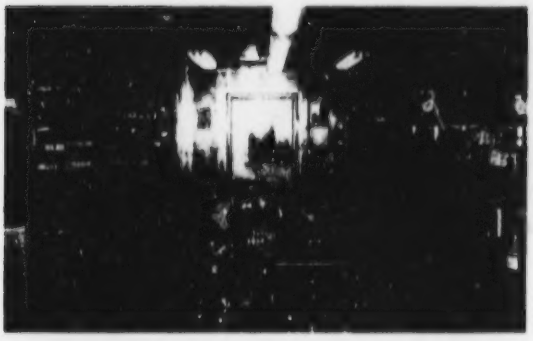


Trailers were placed at various locations throughout the Cal State Northridge campus. The 350 temporary structures allowed the university to reopen within 30 days of the quake, but they did create a maze and a mess for a while. (Photo: CSU Northridge, Public Affairs)

5.4 Plan for Clean-up, Salvage, Demolition, Repair and Rebuilding

Tips:

- Cleanup, debris removal, and decontamination can be expedited if pre-disaster arrangements for contractor support are in place.
- Planning should also give some consideration to temporary debris collection sites on campus.
- Consideration should be given to the possible need for relocation of university activities displaced by damage to buildings and where these activities might be temporarily housed. Issues:
- Very badly damaged buildings and other campus structures will present the dilemma of demolition versus repair, and if they are to be repaired, to what standard of seismic safety.
- Damaged buildings of cultural or historic significance will require careful consideration. Policies should be established regarding post-disaster treatment of various classes of campus buildings and standards for their rehabilitation and restoration.
- Damaged science buildings will raise several concerns: hazardous materials and fire, loss of scientific records and equipment, desire by former occupants to re-enter the building.



This room in a U.C. Berkeley DNA research lab has not had any nonstructural hazard mitigation. (Photo: J. Stallmeyer, U. C. Berkeley)

This CSUN laboratory (above) was destroyed during the Northridge Earthquake. (Photo: L. Parsons, U.C. Santa Barbara)

5.5 Financing Recovery and Reconstruction

Earthquake recovery and reconstruction are expensive. Fiscal considerations which drive earthquake recovery and reconstruction include questions about where the money comes from, are qualifications placed on its use, who gets it, what it is used for and when it is spent.

There are several sources of recovery and reconstruction funds:

- Savings and reserves
- Insurance payments
- Budget reallocations
- Loans
- Fee increases
- Federal disaster assistance
- State disaster assistance
- Tax reductions
- Redevelopment and other incentives
- Contributions of funds or donations of equipment
- Other sources (e.g. special legislation, transfer payments, etc.)

Implied in these sources are three possible strategies for recovery and reconstruction finance: liquidating current assets, borrowing against the future and receiving compensation or aid.

Public Assistance, recovery and reconstruction financial planning

Preparing for Public Assistance

If a federal declaration of disaster is declared for the area where your campus is located, FEMA's public assistance program can provide money to State colleges and universities for eligible disaster repair and reconstruction.

You should begin preparation for public assistance funding eligibility now, before the occurrence of an event. Have facility managers develop an inventory of facilities and create files on each of those facilities. Once a disastrous event occurs, the inventory can be used to rapidly assess damage and be ready for the Federal and State Preliminary Damage Assessment (PDA) teams.

The building inventory file should include the following information:

- Insurance records for the facility.
- A record of maintenance that has been performed on the building, including the maintenance schedule of facilities.
- Previous building damage from other disasters. Provide copies of all relevant public assistance program records and information regarding the damage. This will help to substantiate repetitive damage and pave the way for hazard mitigation funds in addition to repair funds.
- Building lease information. Building lease agreements should clearly identify who is responsible for the maintenance of the facility, the leaser or the lessee. This

information is important for both buildings the school leases to others as well as those leased by the school for its use.

- Environmental issues with the facilities. During post-earthquake restoration, the campus must continue to comply with all state and local regulations for such special considerations as hazardous materials and wetlands.
- Historic building facilities list. Know what demolition and reconstruction regulations and restrictions exist.
- Videotapes. The building inventory file would benefit from inclusion of videos of all facilities, and especially of historic buildings.

The subcommittee previously established for recovery and reconstruction planning (see page 30) has the task of determining recovery and reconstruction finance options. The committee members should familiarize themselves with the post-disaster Public Assistance Program process. To help them with their task, the subcommittee should consider the following steps:

1) Assign a management level budget officer to become familiar with provisions of the federal and state statutes relating to recovery and reconstruction funding. The federal authority is the Robert T. Stafford Disaster Relief and Emergency Assistance Act. The state authority in California comes from the Natural Disaster Assistance Act and the Emergency Services Act. (See Appendix F for a description of the disaster assistance process.)

2) Assemble a plan based on this review of program requirements and application procedures that includes:
   - A database with the approximate replacement costs of structures, supplies, and equipment, and a mathematical function to account for inflation and depreciation.
   - A central damage documentation system that includes photographs, videotape, and written documentation. Notation should include dates and times of all information recorded, actions taken and by whom.

     Note: This documentation should also include information about vacated/inactive facilities. Costs for reconstruction of vacant buildings may be eligible for reimbursement if the agency's budget or capital improvement plan indicates plans to reoccupy the building. If no such documentation exists, the facility may not be eligible for Public Assistance funding.
   - Records of all disaster-related expenses -- extra equipment and personnel, cost of temporary relocation, overtime, supplies and other resources used.

     Note: The cost of hiring or contracting additional staff to perform emergency work or debris removal may be eligible

for reimbursement. FEMA will ***not*** *pay the regular-time salary of current employees who are reassigned to perform emergency work or debris removal; however, overtime wages may be eligible.*

- Special accounting codes that match the disaster assistance eligibility criteria of state and federal agencies.

  Note: The best way to bill for emergency work and permanent reconstruction work is to prepare separate invoices for each facility. The work on the invoices should match the project worksheets. (See Appendix F for more information on project worksheets.) Additionally, the finance department should bill for disaster recovery costs with the same accounting method in use, but disaster repair should be clearly identified by facility and separated from other expenditures.

- An "earthquake hazard mitigation history." The state has a program to address potential differences between simple repair and mitigation upgrading. Proposals for these grants must be accompanied by a mitigation history compiled by the university that details measures taken to reduce earthquake hazards.

3) Appoint a staff person to serve as liaison with local and state emergency management agencies before a disaster occurs and with the same agencies and state and federal disaster assistance officials after the disaster. This person should contact the Governor's Office of Emergency Services, Disaster Assistance Division, about making your billing system for earthquake-related damage compatible with the Public Assistance process. Additionally, this person might represent the university at the local emergency operations center immediately after the disaster, then attend the public officials briefing and assist with Disaster Survey Reporting during the recovery period. (See Appendix F for sample forms.)

4) Examine other alternatives for recovery and reconstruction finance using non-state and federal assistance (e.g. use of reserves, budget reallocations, bank loans, and other sources). Donations "earmarked" for earthquake reconstruction can actually reduce the school's amount of eligible public assistance reimbursement. Contact the Governor's Office of Emergency Services, Disaster Assistance Division for information about the best use of donations.

5) Review the earthquake insurance coverage for your facilities. Understand the restrictions for Public Assistance

reimbursement on facilities that are self-insured for disasters. Pursue a waiver of insurance from the California Insurance Commissioner if buildings are uninsurable.

6) Discuss the use of your facility for mass care and public assistance for the community with the local jurisdiction. Such costs as sheltering are only reimbursable in certain circumstances.

7) Request that the legal officer prepare a summary of potential areas in which the college or university could be considered liable in an earthquake disaster. The subcommittee should work with the campus purchasing-officer to develop an emergency supply/vendor roster and memoranda of understanding with specific firms to provide recovery period services, supplies, and equipment.

5.6 Program Recovery

A major earthquake will cause disruption of college and university programs by damaging facilities and eliminating a significant proportion of operating space. Even pre-earthquake hazard mitigation, which focuses mainly on life-safety, will not prevent disruption of academic and research programs. If the disaster caused temporary cessation of operations or evacuation of dormitories, the dispersed campus population may not have ready access to information on resumption of classes and activities.

Administrative program recovery planning elements

1) Have academic departments determine the time period within which their academic program must resume to avoid serious disruption.

2) Develop policies which address grading, make-up exams, graduation, tuition refunds, payroll, and other functions should the academic program be disrupted for an extended period of time.

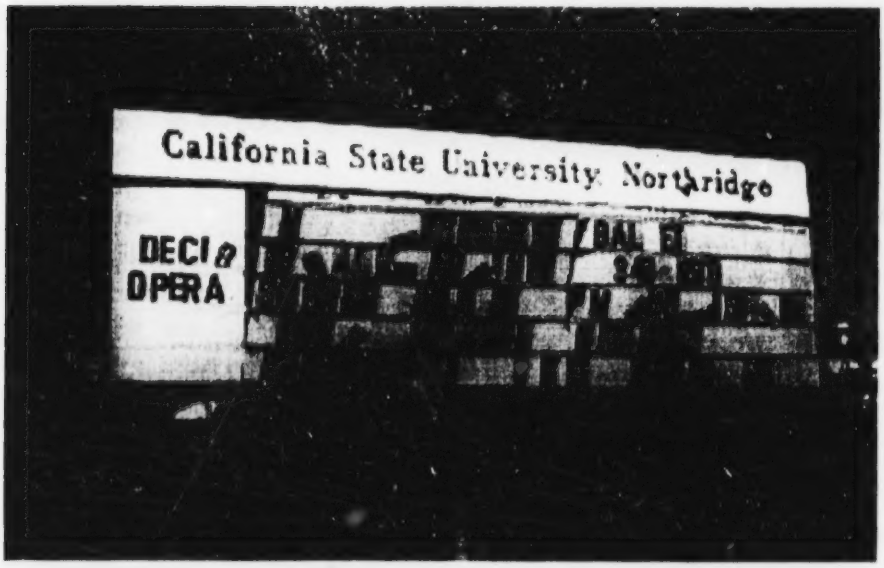
3) Make communication with the campus population and public information a high priority. Information must explain the current status of campus operations including all significant dates for resumption of specific activities (e.g. classes, services, housing, etc.).

Recovery and reconstruction subcommittee program recovery elements

1) Select alternate procedures for supply, banking, payroll, and data processing services. Include methods for off-site, possibly out-of-state, vital record storage.

2) Select alternate sites for administrative operations, academic instruction and student housing.

3) Direct all department heads to make contingency plans for their operations which:
   - Identify and prioritize functions, documents and data records critical to recovery and formulate action plans for their protection. Coordinate results into a campus-wide priority system.
   - Develop plans to rapidly restore critical research programs and the facilities that support them.



All events at CSUN were canceled for months following the Northridge Earthquake. (Photo: L. Parsons, U. C. Santa Barbara)

Further Reading

Note:

The materials listed in this section are publications of the Governor's Office of Emergency Services. You can obtain them by writing or calling the Coastal Region office: 1300 Clay Street, Suite 400, Oakland, CA 94612, (510) 286-0895.

Earthquake Preparedness

- *Academic Aftershocks (a videotape)*
- *Earthquake Hazards in the Workplace (a videotape)*
- *Hospital Earthquake Preparedness Guidelines*
- *Reducing the Risks of Nonstructural Earthquake Damage: A Practical Guide (3rd Edition)*
- *Reducing Non-Structural Earthquake Damage (a videotape)*

Emergency Response

- *ABCs of Post-Earthquake Evacuation: A Checklist for School Administrators and Faculty*
- *Evacuate (techniques for limited mobility persons) (a videotape)*
- *School Emergency Response: Using SEMS at Districts and Sites*
- *Schools as Post-Disaster Shelters: Planning and Management Guidelines*

Recovery

- *Earthquake Recovery: Before, During and After*

APPENDIX A
Job Specifications for
Campus Emergency Preparedness Coordinator

JOB DESCRIPTION:

Under general supervision, assists in the development of a campus-wide disaster plan for effective emergency preparedness, response, and recovery. Aids in the development of campus emergency awareness by providing training for all campus personnel, with special emphasis on emergencies related to earthquakes, fires, and mass casualty incidents. Assesses the programs on an on-going basis to ensure coordination of response and support groups, and to minimize the impact of emergencies on life and property. Coordinates emergency planning with outside agencies, such as the Federal Emergency Management Agency (FEMA), the California Office of Emergency Services (OES), and local emergency response organizations, such as, the American Red Cross, the Operational Area Offices of Emergency Services, fire and law enforcement departments.

DUTIES AND TASKS

A. Planning (40%)

Assesses the potential susceptibility to natural and technological disasters related to the campus, including earthquakes, fires, floods, hazardous spills, bomb threats, and civil disorders. Monitors changing circumstances to identify new or abated hazardous conditions, and provides updated campus hazard evaluations. Develops and maintains the Campus Emergency Operations Plan (EOP). Updates the EOP and convenes meetings of the Emergency Operations Plan staff on a quarterly basis. Coordinates changes to the EOP with all affected departments and outside agencies. Integrates the departmental response to emergencies into the campus plan. Assists campus departments in the development of their Emergency Action/Fire Prevention Plans. Ensures that SEMS is incorporated into all school plans. Documents the use of SEMS in planning, training, exercising, and during an actual emergency.

B. Training and Exercises (40%)

Provides executive level training programs to members of the Emergency Operations Plan staff. Provides the appropriate level of SEMS training to all staff who may work within or support emergency response on campus. Designs and conducts training exercises/drills in order to test the effectiveness of the campus Emergency Operations Plan. These exercises will, at times, include coordination with outside agencies. Assists in the training of department staff in emergency response procedures. Recruits, trains, and manages a permanent organization of volunteers to assist during a campus emergency. Presents formal emergency preparedness seminars to staff, faculty, students, university residential populations, and the external community. Develops emergency preparedness educational materials (brochures, flyers, articles) for dissemination to the campus community.

C. Administration and Coordination (20%)

Coordinates the elements of the Campus Emergency Operations Plan with campus administrators, planning committees, and other organizations. Serves as liaison to local community and government agencies concerning issues related to emergency planning. Assists in the development and maintenance of the campus Emergency Operation Center. Identifies, procures, maintains, and utilizes physical resources (equipment and supplies) related to the implementation of the Emergency Operations Plan.

D. Disaster Response (as required)

Responds to the campus in a timely fashion in the event of an emergency or disaster. Activates the Emergency Operations Center and initiates the implementation of the Emergency Operations Plan.

REQUIRED SKILLS, KNOWLEDGE AND ABILITIES

Bachelor's degree and a minimum of two years experience in Emergency Planning. Technical expertise in appropriate scientific fields to provide systematic evaluation of campus hazards. Ability to identify specific geologic/geographic, demographic, and other multi-disciplinary factors related to emergency management. Ability to analyze descriptive and statistical data related to the complex of potential hazards found in the classroom, laboratory, or residential environments. Demonstrated proficiency in physical and human resource planning, with specific expertise in emergency planning and an understanding of the Standardized Emergency Management System and the Incident Command System. Understanding of computer methodologies that support planning activities.

Leadership and decision-making skills in order to set priorities for decision-making before, during, and after an emergency. Ability to work under pressure--exercising good judgment independently, and as part of a team. Ability to adapt to changing conditions. Excellent ability to communicate effectively through oral presentations and written reports. Ability to interact effectively and diplomatically with a variety of constituencies (executive, administrative, faculty, and student). Ability to represent the University to external professional and lay audiences in an articulate manner. Administrative ability to identify, procure, manage, and utilize a range of physical resources (equipment and supplies) related to the implementation of the Emergency Operations Plan. Willingness to be on-call on a 24-hour basis for campus emergencies.

APPENDIX B

Summaries of Legislation and Applicable Authorities (California)

California Code of Regulations

Title 2
Section 2400 - 2450: Regulations establishing the Standardized Emergency Management System (SEMS). See Appendix F for more information about SEMS.

Title 8
Section 3220: Emergency Action Plan. Applies to California public and private colleges and universities and requires a written emergency action plan which covers "those designated actions employers and employees must take to ensure employee safety from fire and other emergencies." The statute identifies several elements that all plans must contain:

- Emergency escape procedures and emergency escape route assignments,
- Safety procedures for employees who remain to perform critical functions before they evacuate
- Procedures to account for all employees after evacuation,
- Rescue and medical duties for selected employees, and
- Names and job titles of employees who can be contacted for information about the plan.

According to the statute, the Emergency Action Plan must also contain an alarm system that notifies employees of an emergency, evacuation plans, and training, including specification as to the circumstances under which training must be conducted.

Section 3221: Fire Prevention Plan. Like the Emergency Action Plan colleges and universities, as employers, must have a written Fire Protection Plan that contains the following elements:

- Potential fire hazards and their proper handling and storage procedures,
- Job titles of those responsible for fire protection equipment maintenance, and
- Job titles of those responsible for flammable or combustible materials control.

The Fire Prevention Plan must also include written procedures for control of flammable and combustible materials, training and equipment maintenance.

Title 19
Section 3.09: Emergency Planning Information. Requires owners and operators of office buildings 2 or more stories in height (except high rise buildings) to provide emergency procedures and information to building occupants in one of the following forms:

- Leaflet, brochure or pamphlet available to all persons entering the building.
- A floor plan posted at every stairway landing, elevator landing and entrance.

The emergency procedures must include information for all ambulatory, nonambulatory and physically disabled persons.

This section also requires facility emergency plans, fire emergency training and evacuation drills.

Section 3.13: Fire Drills. Requires secondary and post-secondary education institutions to conduct fire drills at regular intervals.

Government Code

(Emergency Services Act)

Section 8607: Standardized Emergency Management System (SEMS). Directs the Governor's Office of Emergency Services (OES) to establish SEMS by regulation. See Appendix F for more information about SEMS.

Section 2400 - 2450: Standardized Emergency Management System. Regulations establishing the Standardized Emergency Management System (SEMS). See Appendix F for more information about SEMS.

Section 3100: Disaster Service Worker. Declares that public employees are disaster service workers, subject to such disaster service activities as may be assigned to them by their supervisors or by law

Education Code

Section 66210: This statute requires the Office of Emergency Services to develop guidelines (a checklist is included in this guide as Appendix F) for campuses of the University of California, California State University and private colleges and universities to use in developing emergency evacuation plans for post-secondary student housing. Emergency evacuation plans are to be developed for all forms of student housing owned, operated and offered by universities and colleges both on, and off, campuses.

Section 66211: The chapter does not impose any requirement on the University of California unless the Regents adopt a resolution to that effect.

APPENDIX C

Stanford University Emergency Plan (Selected Sections*)

(Reproduced for this publication with permission of Stanford University)

STANFORD UNIVERSITY

CAMPUS EMERGENCY PLANS

(Revised, Spring 2000)

Stanford University
Emergency Preparedness Planning Steering Committee

** Selected sections. Plans, and related documents/maps, are available at http://www.stanford/edu/dept/EHS/erprep/index.html*

Summary of the Stanford University Emergency Plans

Stanford' s Emergency Plans include the: **Campus Emergency Plan**
Cabinet Emergency Planning Guidelines
Department Emergency Planning Guidelines

(Plans, and related documents/maps, are available at http://www.stanford/edu/dept/EHS/erprep/index.html)

These documents provide a management framework for responding to major emergencies that may threaten the health and safety of the University community, or disrupt its programs and operations. The plans address earthquakes, fires or explosions, hazardous materials releases, extended power outages, floods, or mass casualty events.

The Campus Emergency Plan establishes an **Emergency Management Team (EMT)** that ascertains the scope of an incident and advises the University President. The Emergency Management Team establishes response strategies and tactics, deploys resources, and initiates the emergency recovery process. **The current EMT Leader and "Incident Commander" is the Director, University Land and Buildings** (through May 2000).

Emergency response actions are guided by Stanford' s overriding emergency goals, to:
Protect life safety
Secure our critical infrastructure and facilities
Resume the teaching and research program

The Team mobilizes at a **central Emergency Operations Center (EOC), located in the *Faculty Club*.** The alternate site is the Public Safety Building (711 Serra). **It gathers emergency intelligence from Satellite Operations Centers (SOCs) managed by Deans, Vice Provosts, Vice Presidents and Directors**---and then returns emergency resources and information. **The University Communications SOC is the campus emergency " InfoCentral,"** and it disseminates internal and external emergency bulletins and announcements. In some emergencies, field command posts may be set up to stage resources or manage operations in areas of the campus.

An emergency event at Stanford may be designated as a Level 1, Level 2, or Level 3 situation:

Level 1 = A minor incident that is quickly resolved with internal resources or limited help.
The Emergency Plan is not activated.

Level 2 = A major emergency that impacts sizable portions of the campus, and that may affect mission-critical functions or life safety.
The Emergency Plan is activated and a subset of the EMT, known as the Situation Triage & Assessment Team (STAT) determines the magnitude of the emergency. The Emergency Operations Center may be opened.

Level 3 = A disaster that involves the entire campus and surrounding community.
The Emergency Plan is activated, and the entire EMT mobilizes at the EOC.

Department Emergency Plans are developed in each Stanford administrative and academic unit. These documents outline strategies for protecting department personnel and programs, and for coordinating with the SOC and EOC. Emergency Plans in specialized service units indicate how they will provide specific emergency aid for the campus---such as safety assessments, search and rescue, repairs, sheltering, counseling and other support.

An Emergency Preparedness Planning Steering Committee reviews the Plan documents annually, and meets regularly to provide general oversight for related policies and procedures.

CAMPUS EMERGENCY PLAN
Revised - Spring 2000

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- Revised text on Satellite Operations Centers (SOCs) - pg. 4-5
- Modified EOC Emergency Management Team organization – pg. 9-11
- Re-configured Emergency Operations Center (EOC) - pg. 12-13
- Enhanced Emergency Recovery material (business contingency planning) pg. 17-18
- Disaster Medical Operations - Modified Appendix A
- Emergency Action Checklists for the EOC and for SOCs – new Appendix B

PURPOSE

The Campus Emergency Plan outlines the University' s procedures for managing major emergencies that may threaten the health and safety of the campus community or disrupt its programs and activities. The Plan identifies departments and individuals that are directly responsible for emergency response and critical support services, and it provides a management structure for coordinating and deploying essential resources.

At Stanford, planning ahead for emergencies is part of normal business planning and campus life, and all members of the campus community share a responsibility for preparedness. An emergency can strike anytime or anywhere, and a disaster will affect everyone. Therefore,

- ✓ All administrative and academic units are expected to maintain a Department Emergency Plan to protect personnel and programs, and to support campus emergency response and recovery. Deans, Vice Provosts, Vice Presidents, and Directors distribute Department Emergency Planning Guidelines with "templates" for developing local plans that are consistent with University policies and procedures.

- ✓ All employees and students have a personal responsibility for knowing what to do before, during, and after an emergency to protect their safety and their work.

- ✓ The University maintains a comprehensive emergency preparedness education and training program to mitigate potential hazards, and to familiarize students and employees with emergency procedures.

The Stanford Emergency Plan is written, reviewed, and amended by the Emergency Preparedness Planning Steering Committee. The Steering Committee provides general oversight for the entire emergency planning process and it meets regularly to address ongoing preparedness, response, and recovery issues.

SCOPE

The Stanford Emergency Plan guides preparedness, response, and recovery actions. It applies to a broad range of emergency incidents, and may be activated during:

- Earthquakes
- Fires or Explosions
- Hazardous Materials Releases
- Extended Power Outages
- Floods
- Mass Casualty Events

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Satellite Operations Centers (SOC)

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CAMPUS EMERGENCY PLAN
Revised - Spring 2000

APPENDIX D

Sample Mutual Aid Agreement
California State University System *

Hazardous Materials/ Emergency Response Mutual Aid Plan For
Northern California State University Environmental Health and Safety Departments

(Reproduced by permission for this publication.)

**** This Mutual Aid Agreement is NOT a part of the***
State of California Master Mutual Aid Agreement

Sample Mutual Aid Agreement
California State University System

Hazardous Materials/ Emergency Response Mutual Aid Plan For
Northern California State University Environmental Health and Safety Departments

01 December 1998

California Polytechnic University
CSU Chico
CSU Fresno
CSU Hayward
CSU Maritime Academy
CSU Monterey Bay
CSU Sacramento
CSU Stanislaus
Humboldt State University
San Francisco State University
San Jose State University
San Luis Obispo
Sonoma State University

MUTAL AID PLAN FOR NORTHERN CALIFORNIA STATE UNIVERSITY
ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

Purpose:

The purpose of the Mutual Aid Plan is to provide additional support to Northern California State University Environmental Health & Safety departments in responding to a release of hazardous substances and other emergencies, which may adversely impact the safety of any campus community or environment. The support provided may include: supplies; equipment and personnel. Additionally, in the event of a major disaster mutual assistance may be provided to or received from the Southern CSU EH&S Mutual Aid Group upon proper training, approval and formal request.

Definitions:

a. Mutual Aid: University wide mutual aid is the temporary reassignment of EH&S personnel, equipment, and/or other resources from one campus to another.

b. Host campus: The campus requesting and receiving mutual aid assistance.

c. Provider campus: Any campus providing mutual aid.

Proposed Mutual Aid Plan
Page 2

Membership:
The members of the Mutual Aid Plan shall include, but is not limited to, CSU campuses at Fresno, Hayward, Humboldt, Maritime Academy, Sacramento, San Francisco, San Jose, San Luis Obispo, Sonoma, and Stanislaus. Other campuses within the CSU or UC systems, may join this plan simply by agreeing to share resources with other members of the plan. However, new members must be approved by a majority vote of the current members.

Responsibilities:
All members of the Mutual Aid Plan agree to share resources with other members. However, no member will be required to deplete their own resources to a level that would adversely affect their ability to respond to internal emergencies.

This written plan shall serve as a reference for the availability of resources within individual Environmental Health and Safety departments. All members of the plan agree to maintain the information regarding their resources listed in the plan and ensure that this information is provided to other members. Each campus will annually review and update their resources information. The CSU Hayward campus will maintain and distribute current information.

Normally requests for mutual aid will be made after extraordinary incidents when the available resources of the host campus are insufficient to respond to emergency needs. However, the interruption of normal communications may preclude an affected campus from requesting assistance, therefore, a provider campus may exercise discretion and provide aid prior to a formal request. Requests for mutual aid will come from the EH&S Director, the Administrative Vice President or routed through the host campus Emergency Operations Center (EOC). When a request is made, or when campuses are responding, the providing campuses shall proceed to the campus EOC in an effort to provide a coordinated and effective mutual aid response.

Training:
All responders will have at least current 8 hours response training and participate in emergency simulation exercises at the member campuses. Campus simulations or other exercise will be scheduled on a rotating basis, to allow all responders to become familiar with individual campuses.

Familiarization tours will be scheduled on an annual basis for participating campuses.

Injury and Illness:
Mutual aid personnel who are injured while at the host campus shall immediately notify their supervisor, who shall ensure that the host campus EH&S Director is advised. Injured personnel are responsible for completing all required documents and reports consistent with the policies of the provider campus, including worker's compensation forms if applicable.

Proposed Mutual Aid Plan
Page 3

Due to changes in the State Workers' Compensation coverage, the host campus is responsible for workers' compensation action costs resulting from injury or illness to its mutual aid personnel.

Operational Procedures:
Operational procedures to be determined by the host campus. The host campus shall be responsible for establishing a chain of command for responders. Mutual aid personnel shall complete all draft reports, or other documents as necessary prior to terminating the mutual aid assignment and returning to the provider campus. Final reports/incident critiques should be mailed to the host campus as soon as reasonably practical.

APPENDIX A

Campus Resource Inventory
This section shall include resources available at each campus. The information for each campus shall include the following as available

Campus name
Environmental Health and Safety Director
Environmental Health and Safety Director's work phone number
Environmental Health and Safety Director's home phone number
Environmental Health and Safety emergency phone number

Out-of-state message phone
Campus Emergency Operations Center phone number
Environmental Health and Safety organizational chart
Environmental Health and Safety personnel list to include name; expertise; training; work phone and home phone numbers

Supplies list
Equipment list (radios, generators, SCBA, PPE, etc.)
Campus hazardous substance contingency plan
Outside contractors (spill clean-up)
List of potential problem areas
Campus map
Campus floor plans
Copy of most current version of floor plans

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APPENDIX B

Minimum Resources of Mutual Responders

Minimum of 1 per individual
Vehicle
Portable radio
Sleeping bag
Tent
Rain gear
PPE (level B maximum, gloves, boots, hard hats, vests)
Spill control equipment
Spill control supplies
Source of electricity - generator
Source of electricity - batteries
Personal hygiene supplies
Clothing for one week
First-aid kit
Baseline medical records for responder(s)
Host campus map
Thomas Brothers maps
Host campus floor plans
Host campus list of potential problem areas
Forms for documentation of resources used and actions and CHP passes.
Proposed Mutual Aid Plan

APPENDIX C

Minimum Resources for Campus Receiving Aid
The campus receiving aid should have the following for each mutual aid responding team:
Portable radio compatible with host campus system
Set of master keys for access
Liaison person
Security passes
Updated maps/floor plans, and
Area to set up "cam"

These items are necessary to allow responders to communicate with the host Environmental Health and Safety department, access rooms and coordinate their actions. A team of mutual aid responders should consist of at least one person.

APPENDIX E

Checklist for Campus Residence Hall Evacuation Planning

This checklist is designed to assist university and college disaster planners in complying with Parts 40 and 59 of the Education Code Chapter C4.1, Section 66210 and Chapter 6, Section 94600 which require that campuses of the University of California, the California State University and private colleges and universities develop emergency evacuation plans for all forms of student housing owned, operated, and offered by the university, both on campus and off campus. Sections 3.09 (Emergency Planning and Information) and 3.13 (Fire Drills) of Title 19, California Code of Regulations have been considered in preparation of these guidelines.

General Evacuation Considerations

An evacuation is the emptying of an occupied area and transfer of occupants to another location. If a partial evacuation is ordered, some building occupants may be instructed to simply move to a safer portion of the building; in other cases, all occupants may be told to leave the structure and reassemble at a designated location (UCLA Office of Environment, Health and Safety, 1991).

Evacuations may be initiated in response to a number of threatened or actual natural and technological hazards including a major earthquake, fire, hazardous material incident, dam collapse or flood. Evacuations are a part of a more general class of emergency operations relating to movement.

The objectives of emergency movement operations are to: expedite the movement of persons from hazardous areas, control evacuation traffic, provide adequate means of notification and transportation for persons with special needs, institute access control measures and provide for the procurement, allocation and use of necessary resources by means of mutual aid or other agreements (State of California, Governor's Office of Emergency Services, State Emergency Plan Annex H, 1989).

This checklist will address several issues relating to the evacuation of housing units in post-secondary educational institutions: plan development and responsibilities, volunteer evacuation coordinators, considerations for persons with disabilities, notification and warning, routing, designated assembly areas, education of students and staff and plan maintenance. The guidance provided here is confined to campus residential housing evacuation planning. We strongly recommend that emergency evacuation planning for residential facilities be integrated with campus-wide evacuation plans. At the conclusion of

the checklist we offer some suggestions for evacuation planning not covered by the mandate of Chapter 6, Section 94600.

Plan Development and Responsibilities

At the outset, it should be emphasized that evacuation planning, whether for campus housing units or for the entire campus, should be part of an overall disaster preparedness, response and recovery plan which is understood and practiced by the entire campus community.

To prepare site-specific housing evacuation plans, college or university safety officials should assemble data on:

- ⇒ The population housed in campus residence halls and in off campus housing owned or operated by the university.
- ⇒ The number of residents with disabilities, the nature of their impairments, and where they reside.
- ⇒ Evacuation plans from the local jurisdiction in which the college or university is located. ***Since a major evacuation is likely to require resources beyond those of the university, coordination with local authorities is absolutely essential***

Responsibilities for university housing evacuation must be clearly specified in the plan and thoroughly understood by designated functionaries. Procedures must be practiced on a regular basis.

The major areas of responsibility are:

Function	**Suggested Dept.**	**Your Campus**
Plan Development	Student Housing	_____
	Campus Police/Fire	_____
	Disaster Coordinator	_____
Plan Activation	Campus Police/Fire	_____
Notification/Warning	Campus Police/Fire	_____
	Public Information	_____
	Executive Admin.	_____
	Site Coordinator	_____
	Floor Wardens	_____
	Disabled Student Services	_____

Relocation Sites	Campus Police/Fire	_____
	Facilities	_____
	Student Housing	_____
	Food Services	_____
Volunteer Coordination, Training & Exercises	Campus Police/Fire	_____
	Student Housing	_____
	Disaster Coordinator	_____

Evacuation Site Coordinators and Floor Wardens

Students, faculty or staff from each residential facility should be recruited to serve as Site Coordinators and Floor Wardens. These volunteers would perform several functions.

⇒ One person per facility should serve as Site Coordinator and have responsibility for coordinating floor wardens and other volunteers at each individual residence

⇒ Floor Wardens should be appointed for each residence hall floor or each building wing. The Floor Wardens' responsibilities are to:

- Assist the Site Coordinator in warning residents of an impending evacuation.
- Give clear evacuation directions--location of stairwell, prohibition on use of elevators, destination. Check all rooms and direct flow of occupants through corridors and stairwells. Take emergency supplies, if possible.
- Assist those with special needs, particularly persons with disabilities.
- Systematically check all rooms to assure that they have been vacated.
- Take roll at the emergency assembly area.
- Receive training in site-specific evacuation procedures and know the location of emergency equipment and supplies.
- Have appropriate training in first aid and CPR.

All site volunteers must also participate in drills and exercises conducted by public safety, student housing or other appropriate emergency officials.

Considerations for Persons with Disabilities[1]

Site volunteers should be aware of persons with disabilities who reside in their facility. Floor wardens must ensure that persons with special needs are evacuated during an emergency or drill. An evacuation procedure should be prearranged between disabled residents and the floor wardens who will be assisting them. A useful procedure is to prepare a roster of self-identified disabled persons who would like assistance during an evacuation:

---

[1] This section is paraphrased at length from the UCLA Emergency Procedures Manual (Office of Environment, Health and Safety) April, 1991.

Sample Roster Information

Name	Disability	Room	Phone	Special Needs
Name	Disability	Room	Phone	Special Needs
Name	Disability	Room	Phone	Special Needs

Individuals may have an unobservable disability that they may or may not identify before an emergency. Such unobservable disabilities might include arthritis, a cardiac condition, chronic back pain or other condition. These individuals may need additional assistance during an evacuation.

Some disability-specific procedures:

- **Visually Impaired Persons**

  Tell the person the nature of the emergency and offer your arm for guidance. This is the preferred method when acting as a "sighted guide".

  As you walk, tell the person where you are and where obstacles are located. When you reach safety, orient the person to the location and ask if further assistance is needed.

- **Hearing Impaired Persons**

  If the residence hall is equipped with audible-only fire alarms, persons with impaired hearing may not perceive an alarm. Two alternative methods of warning are:

  Write a note to tell the person of the situation, the nearest evacuation route and the assembly area. *Sample Script:* "FIRE--Go out the rear door to the right and down. NOW. Meet on the front lawn."

  OR: Turn the light switch on and off to gain attention, then indicate through gestures or in writing what is happening and what to do. Do not use this procedure if you suspect a gas line rupture.

- **Person Using Crutches, Canes or Walkers**

  In evacuations, these individuals should be treated as if they were injured. Carrying options include using a two-person lock-arm position or having the individual sit on a sturdy chair, preferably a chair with arms.

- **Non-Ambulatory Persons (People Who Use Wheelchairs)**

  Most non-ambulatory persons will be able to exit safely without assistance if they are on the ground floor.

  The evacuation needs and preferences of non-ambulatory persons vary. Always consult the person as to his or her advice regarding:

  ⇒ Ways of being removed from the wheelchair and whether there are essential items that must be taken along,

  ⇒ The number of people necessary for assistance,

  ⇒ Whether to extend or move extremities when lifting because of pain, catheter leg bags, braces, etc.,

  ⇒ Being carried forward or backward on stairs, and

  ⇒ If after-care will be necessary if they are removed from the wheelchair.

Remember to check the evacuation route for obstructions before assisting the person to the exit. Delegate other volunteers to bring the wheelchair. When the wheelchair is left behind, remove it from the stairwell and place it so that it does not obstruct egress. Reunite the person with their wheelchair as soon as it is safe to retrieve it. A volunteer should stay with the person until their status is acceptable.

Evacuation Notification and Warning

Once the decision to evacuate residence halls has been made, the department responsible for evacuation notification and instructions should alert residents by the most appropriate means. These may include telephones, radio or TV announcements, sirens, mobile loud speakers and personal contact. Whenever feasible, mobile units should be dispatched to the areas to be evacuated.

If an emergency event has not occurred but is imminent, warning and public information operations will take place under extreme time pressure. General and site-specific warning messages and emergency public information prepared during the pre-emergency period will be used to the extent possible to accelerate these operations.

Evacuation information provided to campus housing residents will include the following:

- Why residents must evacuate,
- A request for cooperation with Site Coordinators and Floor Wardens in exiting housing units,
- Routes to use in exiting the facility, and
- The location of assembly points (a safe location outside the residence hall).

A spokesperson for the campus must maintain close coordination with the local news media to assist in providing timely evacuation announcements.

Identifying Evacuation Routes

Under the supervision of campus safety officials, Site Coordinators should develop plans for exiting individual housing units with careful consideration of the different hazards that may be faced. Maps for each floor or wing of the housing unit should be drafted to outline safe exit routes to be followed in an emergency.

- Obtain floor plans for each housing unit from architectural services or facilities.
- Conduct a walk-through of each floor or wing of the housing unit. Locate all fire extinguishers, manual fire alarm pull stations, and exits. Note these on an evacuation map.
- Include a "Use stairs during emergencies" message on your map.

Post the maps in high traffic areas of the building at every stairway landing, in elevator lobbies and immediately inside all public entrances to the building. The maps must be posted so that they describe the represented floor level and can be easily seen upon entering the floor level or the building.

- **Evacuation maps must be clearly titled and contain emergency information in 3/16 inch non-decorative lettering**:

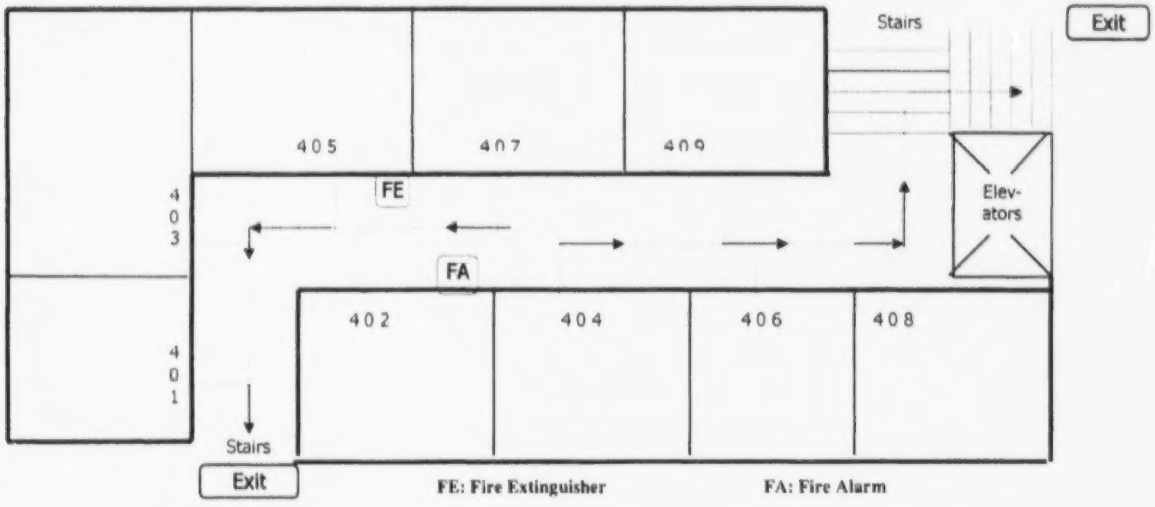
All route planning should carefully consider the needs of persons with disabilities:

- Rosters of persons with disabilities and the nature of these disabilities should be compiled (and updated) for each building (See section entitled "Some Considerations for Persons With Disabilities").

- If necessary, identify alternate routes for the evacuation of those who could not be safely and rapidly evacuated using the designated routes.

- Establish a "buddy" system in which able-bodied volunteers are recruited and paired with persons whose disabilities would create special evacuation needs. The volunteer must become familiar with the special evacuation needs of his/her buddy in advance. This system will free the Floor Wardens to perform other evacuation duties

(Sample)
Evacuation Map for 4th Floor West Wing of Building 105



Use the STAIRS during emergencies.

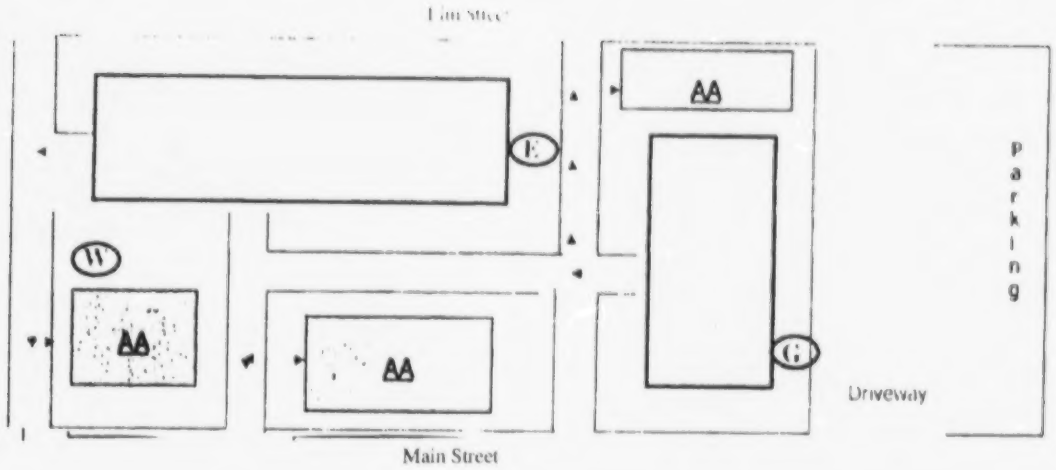
Assembly Areas

Evacuation planners should identify an emergency assembly area within a reasonable walking distance of the campus housing facility and note the location on all evacuation maps. Building occupants will gather at the assembly area to account for evacuees, assess injuries and apply first aid and await further instructions or transportation to mass care facilities.

The assembly area should be open, away from buildings, power lines, trees and other overhead hazards. It must also be accessible to vehicles dispatched to transport evacuees to further assembly points or mass care facilities. The location of the assembly area must be planned so that access to the building by emergency response workers and equipment is not impeded.

Sample Map Indicating

G gas E electricity W water Shut-off Locations and AA – Assembly Areas



Education, Training and Plan Maintenance

Given the rapid turnover of student populations and the extent to which campus housing evacuation plans are dependent on volunteers, it is imperative that there be frequent training sessions, drills, and written materials detailing hazards and appropriate response.

Campus safety officials who are responsible for evacuation planning and activation of the plan should visit each housing facility at least annually to orient new students, faculty, and staff to the campus disaster plan and evacuation procedures.

Each housing unit Site Coordinator should provide verbal details of the building's evacuation procedures, introduce the Floor Wardens and/or recruit new Floor Wardens as well as "buddies" for persons with special evacuation needs. Printed materials containing the emergency evacuation procedures should be given to all housing unit residents. Provide audiotape or Braille instructions for the visually impaired.

There should be special training sessions conducted by the safety office for Site Coordinators, Floor Wardens and volunteers who assist persons with disabilities.

Drills should be carried out on a regular basis (at least twice annually), both announced and unannounced, to reinforce information and instruction provided verbally. All exercises

should be carefully evaluated. By examining every aspect of the exercise and gathering feedback from a sufficient number and variety of participants and observers, strengths and weaknesses of the plan will be identified. These reviews along with after action reports on actual emergencies will provide the basis for improving and enhancing the plan.

Additional Evacuation Measures

While the mandate of Chapter 6, Section 94600 applies only to residence hall evacuation, some additional recommendations are provided below to assist college and university emergency managers to integrate plans for residence halls evacuation with more general campus evacuation plans.

These recommendations are grouped under two categories, transportation and campus evacuation routes.

Transportation

- Assemble information on transportation resources available to the college or university to carry out an off-campus evacuation and to complete an inventory of resident student-owned vehicles should private transportation be required
- The campus agencies that will have key roles in evacuation transportation operations and Traffic/Access Control should be identified (e.g. Campus Police/Fire, Campus Bus/Shuttle, Facilities/Operations and the Parking Office.)
- Some members of the campus community will not have access to a vehicle and some people with disabilities or injuries may require special transportation assistance.
- The number of persons requiring transportation assistance may vary substantially by time of day and day of the week. Buses, vans, ambulances, and other transport vehicles should be requested from transportation providers through established channels.
- Units will be dispatched to pre-designated campus assembly areas to transport evacuees to mass care facilities. Drivers must have clear instructions on:
    - ⇒ Routes to take, including the conditions of roads, bridges and freeway overpasses
    - ⇒ The location of assembly points, both preliminary (a safe location outside the residence hall as well as the pick-up point for transportation to other assembly areas) and the location of remote assembly points, if the immediate area of the evacuation is deemed to be unsafe
    - ⇒ What to do if the vehicle breaks down en route to the assembly point

Campus Evacuation Routes

Campus safety officials must address the issue of evacuation routes for two situations: safe egress from the housing unit to an on-site assembly area, and movement from the campus' assembly areas to designated mass-care facilities (which may or may not be on campus). The best routes from the campus assembly areas to pre-identified mass care facilities should be determined and shown in the school evacuation plan. When selecting the route(s), campus safety officials, in cooperation with neighboring jurisdictions, should consider the following:

- the size of the population to be moved
- road capacity
- roads which could become impassable in the event of specific hazards

If the use of pre-determined evacuation routes is impossible, the best routes will have to be selected at the time of the emergency.

As the emergency situation progresses, campus safety officials should request regular updates from law enforcement and other field personnel as to the condition of the road network and adjust the selection of evacuation routes accordingly. These changes in evacuation routes should be communicated to appropriate evacuation coordinators.

APPENDIX F

State and Federal Disaster Assistance: An Outline of the Cost Recovery Process *

Getting reimbursed for all eligible costs following a presidentially declared disaster is critical to the economic recovery of colleges and universities. Responding to and recovering from a major disaster is incredibly expensive. These few pages are not intended to provide a comprehensive overview. If you are reading this prior to a disaster, you are strongly encouraged to obtain training in the disaster assistance process. The California Specialized Training Institute (CSTI), part of the California Governor's Office of Emergency Services , offers several overview courses. In addition, local governments can request training from the Disaster Assistance Division of OES.

OES will assign an Area Coordinator to work with jurisdictions affected by the disaster. The OES Area Coordinators are the Public Assistance Program's primary customer service representatives. The Area Coordinators work under a Public Assistance Officer. Each OES Area Coordinator is assigned to applicants in a geographical area. It is the Area Coordinator's responsibility to manage the applicants' grant application and the work associated with the application.

The State Area Coordinator will assign a Project Officer to work directly with the applicants' project managers. This Project Officer can request specially trained employees to provide technical expertise if needed. The Project Officer will also assist with preparation and/or prepare applicant's project worksheets and provide other assistance as needed.

This section will help you understand the post-disaster financial assistance by discussing the level of assistance by type of declaration as well as the Public Assistance Process.

Level of Assistance by Type of Declaration

State of Emergency Proclamation - State Assistance
Under a State of Emergency proclamation, the OES administers the Natural Disaster Assistance Act

** All mention of OES in this section refers to the state-level Governor's Office of Emergency Services.*

(NDAA) that provides financial assistance to cities, counties, special districts, schools K-12, and community colleges. State agencies (including state colleges and universities) and private non-profit organizations are not eligible for assistance under NDAA.

Federal Declaration of Major Disaster or Emergency

Schools K-12, colleges and higher education, some private non-profit organizations that provide essential governmental services and are open to the general public, may be eligible for financial assistance under the FEMA Public Assistance Program. Reconstruction cost reimbursement under Public Assistance is for facilities that are used for education or administrative purposes.

To be eligible for financial assistance under this program, an item of work must be a result of the declared event, be located within the area designated by the federal declaration, and be the responsibility of the applicant agency.

The Public Assistance Process

The following section will provide an overview of the reimbursement process, beginning with information about preparing for Public Assistance. This section will then discuss the following aspects of the Public Administration Program:

- **Activation**
- **Funding**
- **Process Summary**
- **Coordinators' Assistance**
- **Acronyms**
- **Form Descriptions and Samples**

<u>Public Assistance Program Activation</u>

The typical sequence of events in the cost recovery process is usually as follows:

- ***The Event***

  A disastrous event occurs. It has caused conditions that are beyond the capabilities of the services, personnel, equipment, and facilities of the city or towns. As a local jurisdiction is overwhelmed by the magnitude of the event, it will request assistance from the Operational Areas (counties). A request is made for assistance from the state as the resources of the Operational Area are depleted, or if the Operational Area is over-whelmed by the magnitude of the event. This request is made to the OES Regional office as specified by California's Standardized Emergency Management System (SEMS).

- ***Local Emergency Proclaimed***

  A city, city and county, or county (on behalf of its unincorporated areas) proclaims the existence of conditions of disaster to the safety of persons and property within its jurisdictions. This proclamation allows the local jurisdiction to request additional resources.

- ***Governor Proclaims a State of Emergency***

  The Governor proclaims the existence of conditions of disaster or extreme peril to the safety of persons and property within the state. The conditions resulting from the disastrous event are beyond the capability of the services, personnel, equipment, and facilities of the affected cities and/or counties. When a situation warrants assistance beyond the state's capabilities, the Governor may request a Presidential declaration through the FEMA regional office.

- ***Preliminary Damage Assessment (PDA)***

  FEMA, OES, and local officials conduct a survey to determine: 1) the impact and magnitude of damage caused by the disaster, 2) the resulting unmet needs of the public sector and community at large, and 3) provides jurisdictions with an estimate that can be used for expedited funding if a Presidential disaster or emergency is declared.

  Your efforts during the Preliminary Damage Assessment should focus on being able to show the teams all of the damage suffered on the campus. Providing the teams a list of damaged sites and a very brief description of the damage can do this. If more detailed information is required, it can be provided at a later date.

- ***Declaration of a Major Disaster or Emergency by the President***

  The combined Preliminary Damage Assessments estimate the total disaster-related damage. It is from this estimate that the President will decide whether or not to declare a disaster. The President's declaration qualifies the affected jurisdictions for federal assistance under the Robert T. Stafford Disaster Relief and Emergency Assistance Act. OES then administers the Public Assistance Program.

Public Assistance Program Funding

Under a Declaration of a Major Disaster, reimbursement for eligible emergency and permanent restoration work is available to colleges and universities under the Public Assistance Program. The Public Assistance Program provides funding for a certain percentage of the emergency repair and restoration project costs. The percentage of costs covered by the Public Assistance Program for most federal disasters is 75 percent federal and 25 percent state and local. ***State colleges and universities and private non-profit (PNP) organizations are not eligible for state funding***. Accordingly, these agencies will be responsible for the entire non-Federal share.

Grants are disbursed to qualifying agencies for recovery projects based on the emergency work and restoration projects identified in the agency's project worksheets. As soon after the event as possible, mobilize your engineering consultants to begin developing "scopes of work" at each damaged site. The damage at each site should be described in narrative form and include quantities (e.g., 1,564 lineal feet of cracks in concrete shearwalls varying from hairline to 3/8" thick; or 10,623 square feet of collapsed suspended ceiling). The proposed scopes of work should reasonably address the damage suffered. For those cases where there has been structural damage that requires significant analysis and evaluation, the scope of work should reflect the need for these studies and the costs should reflect reasonable engineering costs to perform the studies.

In the early stages of recovery, it is the state's intent to financially support emergency measures to protect life and safety. Accordingly, the state will determine if it will provide a means of expedited funding (e.g., Immediate Needs Funding) based on the magnitude of the event.

Public Assistance Process Summary

The primary steps of the Public Assistance Program process are explained below. There is also a diagram of the process at the end of this section.

- ***Applicant Notification***

The state is responsible for notifying all potential applicants of the availability of the Public Assistance Program grants. The state identifies jurisdictions that are eligible to apply as applicants for Public Assistance funding and notifies these jurisdictions through mailings to Public Assistance fund recipients from previous disasters, by media announcement, and on the State OES Web page. The identification of potential applicants is made with the assistance of the OES regional offices and the operational areas.

- ***Applicants' Briefings***

OES may conduct application briefings in areas affected by the disaster to inform potential applicants of the availability of Public Assistance funding. At the briefings, state, and federal officials present information related to the Public Assistance Program, the Hazard Mitigation Grant Program, and other available assistance. Officials provide the grant application forms, cost documentation guidance, audit information, and assist its applicants in completing the required forms.

Application Package

The various forms required for the Public Assistance Process make up an application package. The required forms are described on page 76. Application forms for federal cost-share assistance have the following deadlines:

- Requests for Public Assistance (RPA). Applicants must submit a Request for Public Assistance to OES within 30 days from the federal declaration date for that county unless the deadline is extended by FEMA at OES' request. OES will accept Requests for Public Assistance that are postmarked by the deadline date.
- List of Projects (Exhibit B). Applicants must submit a list of projects within 60 days from the federal declaration date for that county unless the deadline is extended by State OES.
- Designation of Applicant's Agent Resolution. Applicants must assign a representative(s) of the agency. There is no regulatory deadline for this form. It must however, be submitted before payment is made.
- Project Application for Federal Assistance. This form is required in order for the applicant to certify that their organization will comply with all laws, regulations, policies, etc. that govern the federal disaster assistance funding program. There is no regulatory deadline for this form, but it must be submitted before payment is made.

- ***Kickoff Meeting***

Grant applicants will meet with OES and FEMA representatives to start the funding process and the applicant's case management file. At this meeting, state and federal representatives will review program policies with the applicant and discuss anything of special interest or concern, such as historic buildings.

The kickoff meeting starts both the applicant's 30-day timeline for submitting project worksheets for small projects and the 60-day timeline for identification of all damage caused by the disaster. Therefore, local jurisdictions should not rush (or allow FEMA to rush them) to schedule the kickoff meeting. OES Public Assistance staff can help the jurisdiction prepare for this important meeting.

- ***Inspection by Federal, State, and Local Officials***

Based on information from the kickoff meeting, OES and FEMA will determine if applicants have repair and reconstruction projects that may be eligible for FEMA grants. A team of federal, state, and local officials is then formed to inspect a jurisdiction's grant project(s).

When the inspection teams arrive, your engineers should be involved in the site inspections. At each site the team should be provided with the engineer's proposed scope of work, dollar estimate to complete the work, and all relevant background information regarding the facility.

Also have all insurance information about the facilities available for the inspection team. Know whether or not a claim has been filed.

- ***Project Worksheets (Generated and Submitted)***

Project worksheets are generated for the eligible emergency work and permanent restoration projects and filed with OES. The OES or FEMA Resource Coordinator will assign a Project Officer to assist the applicant in preparing small project[2] worksheets if the applicant requests help. The Project Officer will also prepare all large project worksheets for the applicant.

Make sure your scope of work clearly addresses the damage suffered (including any cosmetic damage caused by the earthquake). Qualify your estimates to the best of your ability. The more detailed the information on the project worksheet the better. List all hazard mitigation projects separately from your repair work.

Early in the recovery there is considerable interest in moving projects rapidly through the process. However, the more complete and accurate your initial submittals the faster your project worksheets will be approved and grant funds obligated. Remember that your scope of work must be reasonable for the level of damage. The ultimate determination of reasonableness will come from FEMA during the approval process. Providing these reviewers with a full package allows them to rapidly process the project worksheets with a minimal number of questions.

A sample of the project worksheet is on page 83.

- ***Project Approval***

OES or FEMA will validate, or review, a percentage of small project worksheets prepared by applicants. A minimum of 20 percent will be validated. If there are discrepancies in this initial sample, and additional 20 percent will be validated, and so forth. OES and FEMA will cooperatively review all large project worksheets. They may also review any project worksheets for special considerations (such as historic, environmental, floodplain, insurance).

FEMA Public Assistance Coordinators (PACs) will have authority to approve project worksheets for an amount up to $100,000. The FEMA Public Assistance Officer will review the remainder of the project worksheets and formally notify State OES once project worksheets are approved for funding. State OES will forward project worksheet approval information to its applicants. If colleges and universities have questions about the approval process during this time, they should contact the OES Public Assistance Area Coordinator.

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[2] The small/large project threshold is adjusted annually by FEMA based on the Consumer Price Index. As of October 1, 2000, the threshold is $50,600.

- ***Procurement***

Federal regulations allow colleges and universities to follow their own procurement procedures, as long as those procedures meet or exceed the procurement standards found in the federal regulations. Contract and procurement guidelines and requirements differ for local governments and private nonprofit organizations (PNPs). Institutes of higher education, PNPs, and hospitals are subject to Office of Management and Budget (OMB) Circular A-110. Please be aware that funding may be jeopardized if the applicant does not comply with acceptable procurement practices.

- ***Requests for Additional Funding***

  ⇒ Small Projects

  Normally FEMA will not review requests for additional funding for small projects. Therefore, colleges and universities requesting additional funding should wait until all of their small projects are complete and establish the net overrun of all small projects. The deadline for an appeal for additional funding is within 60 days of completing the last small project. However, if the overrun amount reflects a change in scope or increases the project into a large project, immediately notify OES in writing of the change, as special considerations reviews might be necessary.

  ⇒ Large Projects

  Applicants identify cost overruns caused by variations in unit prices, a change in the scope of eligible work, or delays in timely starts or completion of eligible work on a supplemental project worksheet to the original large project worksheets. FEMA assigns a FEMA/OES inspection team to prepare the supplemental project worksheet, as necessary. Supplements are requested through OES, and must include supporting documentation (such as contract, invoices). OES transmits the supplement project worksheet to FEMA for review.

  Be advised that not all supplemental costs are eligible. Generally, concerning permanent work, only costs to restore the predisaster design and condition of the damaged facility are eligible.

- ***Project Funding***

OES processes all federal public assistance and corresponding state share payments to applicants. Disaster reimbursements may be reduced if the applicant receives funds from other state and/or federal programs, insurance and/or donations. Applicants are required to pursue all other programs for which they may qualify before becoming eligible for disaster assistance. Applicants who have on-going repairs and reimbursements for multiple disasters must segregate and separately account for the costs and reimbursements received under each disaster.

⇒ Small Projects
100 percent of the federal share and 90 percent of the State share of Public Assistance Program funding for small projects is paid automatically after OES has received the approved project worksheets from FEMA.

⇒ Large Projects
The applicant is required to submit a *Request for Large Project Reimbursement* (OES Form 131) to receive funding for large projects. The college or university's authorized agent must sign the form. Payments on large projects are made on a reimbursement basis and can be processed only after costs have been incurred.

- ***Project Monitoring***

OES is required to ensure applicant compliance with federal requirements and ensure that performance goals are achieved. In order to accomplish this task, OES implements a Large Project Monitoring Program (LPMP) based on specific selection criteria. If any of your projects on your campus meet the selection criteria, OES will provide you with written notification and specific instructions to comply with this program.

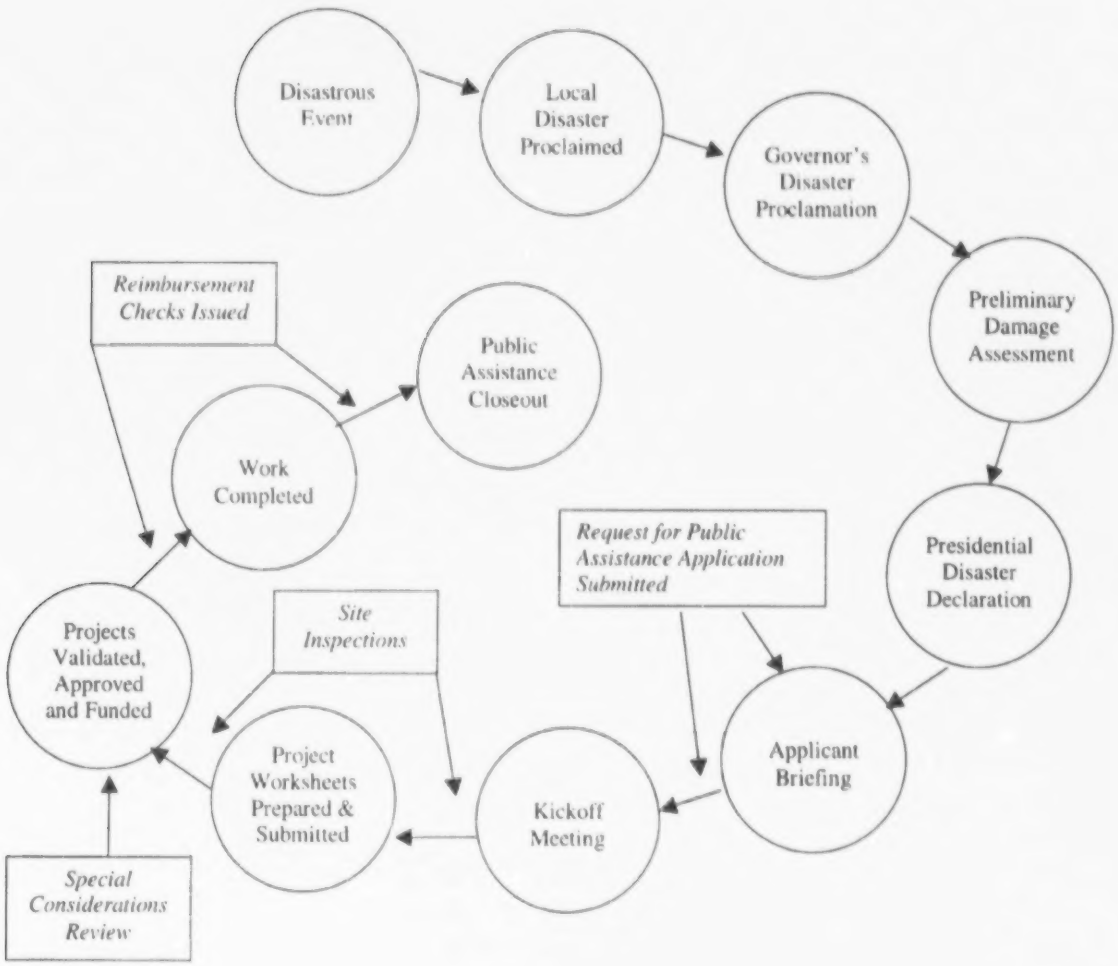
- ***Completed Project Work***

Emergency work is to be completed within six months following the date of the federal declaration. OES may grant the applicant a six-month extension if the applicant demonstrates adequate justification. Permanent work is to be completed in eighteen months. OES may grant the applicant a thirty-month extension if the request is adequately justified. Any time extension required beyond OES' must be approved by FEMA.

- ***Grant Closure***

Once all projects are complete, the applicant requests a final inspection from OES. The final inspection process provides an opportunity to ensure that the applicant has received funding for all eligible costs. Upon completion and approval by FEMA of the final inspection, OES issues final payment. The applicant must retain all records for a three-year retention period. OES will notify the applicant of the start date of the retention period based on the specifics of the agency's application closure and audit determination, if applicable.

This diagram shows the flow of the Public Assistance Program process.



Public Assistance Program Acronyms

It is likely that when you work with Public Assistance Program officials they will use acronyms for program components. The following list includes the most used acronyms.

44 CFR	Title 44 of the Codes of Federal Regulation
AC	Area Coordinator (OES)
ADR	Alternate Dispute Resolution
CEF	Cost Estimating Format
CESA	California Emergency Services Act

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DAD	Disaster Assistance Division (State OES)
FIR	Final Inspection Report
NDAA	Natural Disaster Assistance Act
OAs	Operational Areas (or Op Areas)
PA Number	FEMA Project Applicant Number
PAO	Public Assistance Officer
PDA	Preliminary Damage Assessment
PW	Project Worksheets
RPA	Request for Public Assistance (FEMA Form 90-49)

Public Assistance Program Forms

The following forms may be completed at the applicant's briefing. (Sample forms are provided at the end of this appendix.)

- Request for Public Assistance – The official notification of intent to apply for public assistance monies and to establish a contact person following declaration of a disaster. This short form asks for general identification information about an applicant and is required in order for the applicant to certify that their organization will comply with all laws, regulations, policies, etc. that govern the federal disaster assistance funding program. See page. 74.

- Designation of Applicant's Agent Resolution (OES 130) [3] – This form identifies that person or persons within the university who are the official contact persons for state and federal disaster officials. The resolution should designate more than one person as agent. Authorized agents should represent administration, fiscal services and/or operations divisions. This form is required of all applicants in order for funding to be released. See page 75.

[3] In an effort to eliminate redundancy, OES created "universal" Form 130. If a subgrantee has previously submitted the "universal" document (OES Form 130 dated 10/97), this form is not required for subsequent events.

BEST COPY AVAILABLE

- Project Application for Federal Assistance (OES 89) [4] – This form provides certification that the applicant will comply with various assurances and agreements required by FEMA. See pages 76 and 77.

- List of Project Sites, Exhibit B – The college or university is asked to identify the specific facilities on campus that are damaged and the types of disaster-related activities they must undertake (e.g., demolition, debris cleanup, permanent repairs, etc.). The Exhibit B must include a list of all known damage sites in addition to a description of necessary work and corresponding cost estimate. Public Assistance Program officials do not expect the descriptions of damage to be highly detailed at the beginning of an event, however the more details provided the better. This form is very important in the preparation of Project Worksheets. See page 78.

The forms described below are completed at other times during the Public Assistance Program Process. (Sample forms are provided.)

- Project Worksheet – This FEMA form describes the scope of work for disaster repair and construction projects. Applicants will probably have more than one project worksheet. See page 79.

- Damage Survey Report (OES 90) – This State form is used for State-only events. It provides information similar to the project worksheet. See page 80.

- Large Project Reimbursement Request (OES 131) – This is the State form an applicant would use to request reimbursement for expenditures on large projects. See page 81.

[4] In an effort to eliminate redundancy, OES created "universal" Form 89. If a subgrantee has submitted the "universal" document (OES Form 89 dated 2/98), this form is not required for subsequent events.

FEDERAL EMERGENCY MANAGEMENT AGENCY

REQUEST FOR PUBLIC ASSISTANCE

O.M.B. No. 3067-0151
Expires April 30, 2001

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 10 minutes. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and submitting the forms. You are not required to respond to this collection of information unless a valid OMB control number is displayed in the upper right corner of the forms. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (3067-0151). **NOTE:** Do not send your completed form to this address.

APPLICANT *(Political subdivision or eligible applicant.)*	DATE SUBMITTED
COUNTY *(Location of Damages. If located in multiple counties, please indicate.)*	

APPLICANT PHYSICAL LOCATION

STREET ADDRESS			
CITY	COUNTY	STATE	ZIP CODE

MAILING ADDRESS (If different from Physical Location)

STREET ADDRESS			
POST OFFICE BOX	CITY	STATE	ZIP CODE

Primary Contact/Applicant's Authorized Agent	Alternate Contact
NAME	NAME
TITLE	TITLE
BUSINESS PHONE	BUSINESS PHONE
FAX NUMBER	FAX NUMBER
HOME PHONE (Optional)	HOME PHONE (Optional)
CELL PHONE	CELL PHONE
E-MAIL ADDRESS	E-MAIL ADDRESS
PAGER & PIN NUMBER	PAGER & PIN NUMBER

Did you participate in the Federal/State Preliminary Damage Assessment (PDA)? ☐ Yes ☐ No

Private Non-Profit Organization? ☐ Yes ☐ No

If yes, which of the facilities below best describe your organization?

Title 44 CFR, part 206.221(e) defines an eligible private non-profit facility as: "... any private non-profit educational, utility, emergency, medical or custodial care facility, including a facility for the aged or disabled, and other facility providing essential governmental type services to the general public, and such facilities on Indian reservations." "Other essential governmental service facility" means museums, zoos, community centers, libraries, homeless shelters, senior citizen centers, rehabilitation facilities, shelter workshops and facilities which provide health and safety services of a governmental nature. All such facilities must be open to the general public.

Private Non-Profit Organizations must attach copies of their Tax Exemption Certificate and Organization Charter or By-Laws. If your organization is a school or educational facility, please attach information on accreditation or certification.

Official Use Only: FEMA- -DR- : FIPS # Date Received:

FEMA Form 90-49, SEP 98 REPLACES ALL PREVIOUS EDITIONS

BEST COPY AVAILABLE

State of California
Office of
Emergency Services

P.A. No.:

DESIGNATION OF APPLICANT'S AGENT RESOLUTION

BE IT RESOLVED BY THE _____ _____ OF THE _____
(Governing Body) (Name of Applicant)

THAT _____ , OR
(Title of Authorized Agent)

_____ , OR
(Title of Authorized Agent)

_____
(Title of Authorized Agent)

is hereby authorized to execute for and in behalf of the _____, a public entity established under the laws of the State of California, this application and to file it in the Office of Emergency Services for the purpose of obtaining certain federal financial assistance under P.L. 93-288 as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, and/or state financial assistance under the Natural Disaster Assistance Act.

THAT the _____, a public entity established under the laws of the State of California, hereby authorizes its agent(s) to provide to the State Office of Emergency Services for all matters pertaining to such state disaster assistance the assurances and agreements required.

Passed and approved this _____ day of _____, 19_____

_____
(Name and Title)

_____
(Name and Title)

_____
(Name and Title)

CERTIFICATION

I, _____, duly appointed and _____ of
(Name) (Title)
_____, do hereby certify that the above is a true and correct copy of a resolution passed and approved by the _____ of the _____ on the
(Governing body) (Name of Applicant)
_____ day of _____, 19___.

Date: _____

_____
(Official Position)

_____
(Signature)

OES Form 130 (10/97) DAD Form

State of California
Office of
Emergency Services

P.A. No. _____

PROJECT APPLICATION FOR FEDERAL ASSISTANCE

SUBGRANTEE'S NAME: _____
(Name of Organization)

ADDRESS: _____

CITY: _____ STATE: _____ ZIP CODE: _____

TELEPHONE: _____ FAX NUMBER: _____

AUTHORIZED AGENT: _____ TITLE: _____

ASSURANCES - CONSTRUCTION PROGRAMS

Note: Certain of these assurance may not be applicable to all of your projects. If you have questions, please contact the Governor's Office of Emergency Services. Further, certain federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the subgrantee named above:

1. Has the legal authority to apply for federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-federal share of project costs) to ensure proper planning, management and completion of the project described in this application.

2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the state, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.

3. Will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the federal interest in the title of real property in accordance with awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with federal assistance funds to assure nondiscrimination during the useful life of the project.

4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.

5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progress reports and such other information as may be required by the assistance awarding agency or state.

6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.

7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gains.

8. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§ 4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.

9. Will comply with all federal statues relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683 and 1685-1686) which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794) which prohibit discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101-6107) which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 93-255) as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616) as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), as amended, relating to nondiscrimination in the sale rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for federal assistance is being made, and (j) the requirements on any other nondiscrimination statute(s) which may apply to the application.

10. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced or whose property is acquired as a result of federal and federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of federal participation in purchases.

11. Will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $5,000 or more.

12. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.O. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved state management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§ 1451 et seq.); (f) conformity of federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. § 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.O. 93-205).

13. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§ 1271 et.seq.) related to protecting components or potential components of the national wild and scenic rivers system.

14. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and preservation of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq).

15. Will comply with Standardized Emergency Management (SEMS) requirements as stated in the California Emergency Services Act, Government Code, Chapter 7 of Division 1 of Title 2, Section 8607.1(e) and CCR Title 19, Sections 2445, 2446, 2447 and 2448.

16. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984 and the Single Audit Act Amendments of 1996.

17. Will comply with all applicable requirements of all other federal laws, Executive Orders, regulations and policies governing this program.

18. Has requested through the State of California, federal financial assistance to be used to perform eligible work approved in the subgrantee application for federal assistance. Will, after the receipt of federal financial assistance, through the State of California, agree to the following:

    a. The state warrant covering federal financial assistance will be deposited in a special and separate account, and will be used to pay only eligible costs for projects described above;

    b. To return to the State of California such part of the funds so reimbursed pursuant to the above numbered application which are excess to the approved, actual expenditures as accepted by final audit of the federal or state government.

    c. In the event the approved amount of the above numbered project application is reduced, the reimbursement applicable to the amount of the reduction will be promptly refunded to the State of California.

The undersigned represents that he/she is authorized by the above named subgrantee to enter into this agreement for and on behalf of the said subgrantee.

_____
SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

_____
TITLE

_____
DATE

OAD Form
OES 89 (Rev2/98)

State of California
Office of Emergency Services

"EXHIBIT B"
List of Project Sites

Page ____ of ____

APPLICANT:_____ DATE COMPLETED:_____

CONTACT NAME AND PHONE NUMBER: _____ IS THIS AN AMENDED EXHIBIT "B"? _____

ITEM #	LOCATION	DESCRIPTION OF DAMAGE AND SCOPE OF WORK	COST ESTIMATE	ENTER SP IF SMALL PROJECT OR LP IF LARGE PROJECT	ENTER "EW" FOR EMERG. WORK OR "PW" FOR PERM. WORK	WAS WORK COMPLETED BY FORCE ACCT. (FA), CONTRACT (C) OR BOTH (F/C)?	ENTER "ENV" IF THERE ARE ENVIRONMENTAL ISSUES OR "HIST" FOR HISTORIC ISSUES, OR BOTH	WOULD YOU LIKE TO PROPOSE HAZARD MITIGATION?	WAS THERE INSURANCE COVERAGE? IF YES, ENTER DEDUCTIBLE AMOUNT	WAS THE FACILITY DAMAGED IN A PRIOR DISASTER(S)? IF YES, ENTER DISASTER NAME(S) OR NUMBER(S)
			$						$	
			$						$	
			$						$	
			$						$	
			$						$	
			$						$	
			$						$	

Complete shaded sections for federal disasters only

FEDERAL EMERGENCY MANAGEMENT AGENCY

PROJECT WORKSHEET

O.M.B. No. 3067-0151
Expires April 30, 2001

PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this form is estimated to average 30 minutes. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and submitting the forms. You are not required to respond to this collection of information unless a valid OMB control number is displayed in the upper right corner of the forms. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472, Paperwork Reduction Project (3067-0151). **NOTE:** Do not send your completed form to this address.

DECLARATION NO.	PROJECT NO.	FIPS NO.	DATE	CATEGORY
FEM ____- ___				

DAMAGED FACILITY	WORK COMPLETE AS OF:
	_____ : _____ %

APPLICANT	COUNTY

LOCATION	LATITUDE	LONGITUDE

DAMAGE DESCRIPTION AND DIMENSIONS

SCOPE OF WORK

Does the Scope of Work change the pre-disaster conditions at the site? ☐ Yes ☐ No

Special Considerations issues included? ☐ Yes ☐ No Hazard Mitigation proposal included? ☐ Yes ☐ No

Is there insurance coverage on this facility? ☐ Yes ☐ No

PROJECT COST

ITEM	CODE	NARRATIVE	QUANTITY/UNIT	UNIT PRICE	COST
			/		$0.00
			/		$0.00
			/		$0.00
			/		$0.00
			/		$0.00
			/		$0.00
			/		$0.00
			/		$0.00
			/		$0.00
				TOTAL	$0.00

PREPARED BY: TITLE:

FEMA Form 90-91, SEP 98 REPLACES ALL PREVIOUS EDITIONS.

Page 1 of _____ Pages

STATE OF CALIFORNIA
Governor's Office of Emergency Services

Natural Disaster Assistance Act
Damage Survey Report (DSR)

STATE DISASTER NUMBER: _____ **FEDERAL DISASTER #:** _____

STATE APPLICANT ID NUMBER: _____ **FEDERAL PA ID #:** _____

STATE INCIDENT PERIOD: (From) _____ (To) _____

TYPE OF DISASTER: [ ] Governor's Proclamation *or*
[ ] Earthquake *or* [ ] Flood/Winter Storm *or* [ ] Fire *or*
[ ] Other (Please Specify Type): _____

TYPE OF NDAA DSR: [ ] Emergency Work *or* [ ] Permanent Work

SUPPLEMENT TO NDAA DSR #: _____

SUBGRANTEE NAME:

FACILITIES/SITE ADDRESS OR DIRECTIONS (Include City, County of Site) **GPS Coordinates:** _____

DESCRIBE DISASTER RELATED DAMAGE TO THE FACILITY/SITE:

SCOPE OF WORK TO BE COMPLETED:

Is this Facility Eligible for Federal Funds?	Yes [ ] No [ ] Unkn [ ]	**Federal DSR Number:**	
Federal Program:	FEMA [ ] NRCS [ ] USACOE [ ] OTHER [ ]	**Federal DSR $ Amount:**	
Is this an Historic Structure?	Yes [ ] No [ ] Unkn [ ]	**On National Register?** [ ]	**50+ Years Old?** [ ]
Significant Effect on Environment?	Yes [ ] No [ ] Unkn [ ]	**Is Project Cat-X or Stat-X?**	Yes [ ] No [ ] Unkn [ ]
Is there Insurance for Damages?	Yes [ ] No [ ] Unkn [ ]	**Insurance Recovery:** $	**Ins. Deductible** $
Work done by Force Account Labor?	Yes [ ] No [ ] Unkn [ ]	**Percentage of Work Completed at Inspection:**	
Total Eligible Labor, Equipment, Materials and Contract costs from attached Cost Worksheet:		**TOTAL COSTS $:**	**$0**

OES Applicant Services Rep. Name	**OES ASR Signature**	**Date of Site Inspection:** _____ **Date of DSR Submission to AC:** _____ **Recommend Eligible?** Yes [ ] No [ ]	
Name of Local Representative	**Representative's Signature**	**Concur with Scope of Work?** Yes [ ] No [ ] **Contact Telephone Number or Fax Number:** ( )	
Name of Reviewer/Area Coordinator	**Reviewer/AC Signature**	**Date Reviewed:** _____ **Recommended Eligible?** Yes [ ] No [ ]	
Public Assistance Officer D. A. Christian	**PAO Signature**	[ ] **See attachment explaining changes or denial.**	**Approved?** Yes [ ] No [ ] **Amount $**

NDAA Form 2 (Revised 0/11/98) OES 90

State of California
Office of
Emergency Services

LARGE PROJECT REIMBURSEMENT REQUEST
FEDERAL PUBLIC ASSISTANCE PROGRAM

This form is to be used for large projects only and reimbursement is based on certification of actual expenditures

PA No.: _____ FEMA DR No. _____

Applicant: _____

Address: _____

City, State & Zip: _____

Address Correction Request _____ Please indicate changes on reverse

DSR No.	CATEGORY	FEMA 100% APPROVED AMOUNT	EXPENDITURES TO DATE	AMOUNT REQUESTED
		SUB TOTALS FROM OTHER PAGES		
		TOTALS		

Under penalty of perjury, I certify that to the best of my knowledge and belief the information provided is correct and complete and that all expenditures were made in accordance with the grant conditions or other agreements and that payment is due and has not been previously requested or received. I am familiar with Section 312, 314, 317, and 318 of Public Law 93-288, as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

Authorized Agent (Per OES Form 130)

_____ _____ _____
Printed Name Phone No. Fax No.

_____ _____
Title E-Mail Address

_____ _____
Signature Date

(For Internal Use Only)

Amount of Prior Payments $_____

AMOUNT APPROVED THIS REQUEST $_____

Total Amount Paid $_____

Date_____ Reviewer_____ Title_____
Date_____ Reviewer_____ Title_____

APPENDIX G

More about the Standardized Emergency Management System (SEMS)

What is SEMS?
The system required by Government Code Section 8607 for managing response to multi-agency and multi-jurisdiction emergencies in California.

SEMS requires that all state agencies – public colleges and universities included – must use SEMS to be eligible for state disaster assistance funding of their personnel-related costs. The Standardized Emergency Management System shall include all of the following systems as a framework for responding to and managing emergencies and disasters involving multiple jurisdictions or multiple agency responses:

- The Incident Command System, adapted from the system originally developed by the FIRESCOPE Program.
- The multi agency coordination system, as developed by the FIRESCOPE Program.
- The mutual aid agreement, as defined in Government Code Section 8561, and related mutual aid systems such as those in law enforcement, fire service, and coroners' operations.
- The operational area concept, as defined in Government Code Section 8559.

What is the Purpose of SEMS?
To provide an effective response to emergencies in California.

By standardizing key elements of the emergency management system, SEMS is intended to:

- facilitate the flow of information within and between levels of the system,
- facilitate coordination among all responding agencies.

Use of SEMS will expedite the mobilization, deployment, utilization, tracking, and demobilization of needed mutual aid resources. Use of SEMS will reduce the incidence of poor coordination and communication, and reduce resource ordering duplication on multi-agency and multi-jurisdiction responses. SEMS is designed to be flexible and adaptable to the varied disasters that occur in California and to the needs of all emergency responders.

Organization/Response Levels

SEMS provides for five distinct organizational levels of emergency response and disaster management that may be activated as necessary:

- **Field Response:** Emergency response level where university personnel carry out tactical decisions and resources are allocated.
- **Local Government:** The level that includes cities, counties, and special districts.

- **Operational Area:** An intermediate level of the state's emergency services organization that includes the county and all political subdivisions – including public colleges and universities – situated within the county.
- **Regional:** The level that manages and coordinates information and resources between the operational areas and the state level.
- **State:** The level that manages state resources in response to emergency needs of the other levels. State level also serves as the initial coordination and communication link with the federal response system.

There are common features at all SEMS levels that make ICS so useful for emergency response:

⇒ *Essential Management Functions* (adapted from ICS): management, operations, planning/intelligence, logistics and finance/administration.

⇒ *Organizational Flexibility (Modular)* that allows functions to be performed by a few people or many, depending on the size of the emergency and the human resources at hand.

⇒ *Organizational Unity and Hierarchy of Management* so that every individual has a designated supervisor. All functional elements are linked together to form a single overall organization within appropriate span-of-control limits.

⇒ *Manageable Span of Control* (1:5) so that safety and personnel accountability is ensured.

⇒ *Common Terminology* to ensure that situations and actions are described with similar wording.

⇒ *Comprehensive Resource Management* to record the status of resources, to anticipate resource needs and evaluate current resource assistance.

⇒ *Integrated Communications* to ensure redundant means of communicating and effective use, distribution and maintenance of communications equipment.

⇒ *Incident Action Plan* to provide all supervisory personnel with appropriate direction for future action.

⇒ *Management by Objectives* planning process to establish for a given operational period, measurable and attainable objectives to be achieved.

⇒ *Resource Management* through the use of directing, controlling coordination and inventorying resources.

Compliance issues

Adopting SEMS: The California Code of Regulations Title 19, Division 2, Section 2401, states that "State agencies must use SEMS" in responding to emergencies "involving multiple jurisdictions or multiple agencies." The University of California and the State University are among the state agencies specifically named in SEMS guidelines (Part II, Section A, page 2) as having "field response" responsibilities, which requires the use of the ICS component of SEMS.

Although the Code requires the use of SEMS, the formal adoption of a SEMS policy would provide clear and unambiguous direction to departments and staff that they are expected to

meet the requirements set forth in the regulations. Emergency plans should be updated to include policies and procedures prescribed by SEMS.

Training: SEMS regulations require State agencies that might engage in emergency response to ensure that their personnel maintain minimum training competencies pursuant to the approved SEMS course of instruction. Agencies should develop a training plan that provides for training for all staff with emergency roles. Provisions should be made for an on-going program to accommodate personnel changes. Agencies should establish a record-keeping system for SEMS training.

Planning Checklist

The following planning checklist focuses on some of the SEMS items that should be considered by emergency response agencies when promulgating SEMS.

Policies and procedures

- ❑ Has the governing body formally adopted SEMS?
- ❑ Has the agency adopted policies for using ICS in field response as part of SEMS?
- ❑ Have all departments and agencies been informed of SEMS requirements?
- ❑ Has the emergency plan been updated to include SEMS?
- ❑ Have you identified appropriate avenues for information flow and resource requests?
- ❑ Have field manuals and the emergency operations plan been updated to incorporate ICS?
- ❑ Do field manuals for all personnel include ICS position checklists?
- ❑ Have arrangements been made for redundant communication (intra/inter-agency)?
- ❑ Is a process in place to regularly and frequently update the emergency operations plan?

Training and exercising

- ❑ Has the agency developed a training plan?
- ❑ Does the plan provide for training all existing personnel who may act within or in support of emergency response?
- ❑ Does the plan provide for training newly hired personnel?
- ❑ Does the training plan provide for use of the state approved SEMS training curriculum?
- ❑ Have the necessary funds been budgeted to meet the training plan timetable?
- ❑ Has the agency developed a method for documenting the training program, a method that includes the training records of all personnel?
- ❑ Has someone been designated with responsibility to monitor the implementation of the training plan to ensure that timetables are met and quality training is assured?
- ❑ Has the agency developed a program for exercising the emergency operations plan on an annual or more frequent basis?
- ❑ Does the training program provide for development of full-scale exercises?

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Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
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